



2009 Annual Report

Department of Surgery
The Ohio State University Medical Center
Columbus, Ohio



Department of Surgery 2009 Annual Report

July 1, 2008 – June 30, 2009

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Columbus, Ohio

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395 West 12th Avenue

Columbus, OH 43210-1267

Cover photograph by Jim Brown



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Overview



E. Christopher Ellison, M.D.
Chairman, Department of Surgery

The missions of the Department of Surgery are consistent with those of The Ohio State University College of Medicine. The department's missions are the delivery of high-quality patient care, the contribution to innovations in medicine through basic and translational research and clinical outcomes studies, and the education of medical students and postgraduate trainees. This report summarizes the changes and accomplishments in the department from July 1, 2008 through June 30, 2009.

In September 2008, we lost one of our dearest and most successful faculty members, Dr. Michael J. Walker. To honor him, we established the Michael J. Walker Teaching Award and the Michael J. Walker Lectureship in Surgical Oncology.

Organization

The Department of Surgery comprises eight specialty divisions: Cardiothoracic Surgery; Critical Care, Trauma, and Burn; General and Gastrointestinal Surgery; Pediatric Surgery; Plastic Surgery; Surgical Oncology; Transplantation; and Vascular Diseases and Surgery. In addition, the Center for Minimally Invasive Surgery, a multidisciplinary organization within the department, is dedicated to developing and implementing minimally invasive technologies and procedures.

Faculty

Recruitment efforts brought 12 new faculty members to the department this year. The Center for Minimally Invasive Surgery made three one-year clinical faculty appointments. The Division of Cardiothoracic Surgery, the Division of Care, Trauma, and Burn, and the Division of Surgical Oncology each added two new faculty members. The Division of General and Gastrointestinal Surgery, the Division of Plastic Surgery, and the Division of Vascular Diseases and Surgery each appointed one new faculty member. A complete list of this year's faculty appointments begins on page 7 of this report.

Clinical Care

The Department of Surgery provides all aspects of major surgical care. This year, the department performed 26,735 surgical procedures and received 80,697 outpatient visits. Outpatient services are available at numerous sites, including:

- Aesthetic Surgery at Easton Town Center, 2 Easton Oval, Suite 545.
- The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, 300 West 10th Avenue.
- Cramblett Hall Medical Clinic, 456 West 10th Avenue.
- General Surgery at Knightsbridge, 4830 Knightsbridge Boulevard, Suite J.
- JamesCare Dublin, 4019 Dublin-Granville Road.
- The Martha Morehouse Medical Plaza, 2050 Kenny Road.
- Nationwide Children's Hospital, 700 Children's Drive.
- The Ohio State University Medical Center, 450 West 10th Avenue.
- The Ohio State University Medical Center Services, 770 Kinnear Road.
- Plastic Surgery at Knightsbridge, 4830 Knightsbridge Boulevard, Suite G.
- Plastic Surgery at the OSU Eye and Ear Institute, 915 Olentangy River Road, Suite 2100.
- The Richard M. Ross Heart Hospital, 452 West 10th Avenue.
- University Hospital East, 1492 East Broad Street.

Research

Research efforts continue to focus on three major areas: wound healing, vascular biology and transplantation, and tumor biology.

This year, new research funding awarded through The Ohio State University Research Foundation to principal investigators in the Department of Surgery totaled more than \$4.1 million. New federal funding was more than \$2.4 million, or 59 percent of total funding. New non-federal funding was more than \$1.6 million, or 41 percent of the total.

Education

Twenty-four residents and fellows completed their training programs this year. Nine went on to community practice, eight to further training, and five to academic appointments. Two residents had not yet decided on a position at the time of graduation. One fellow is scheduled to complete his program in October 2009.

Department Statistics

Full-Time Faculty	80
Residents and Fellows	82
ACGME-Accredited Surgical Residencies	4
ACGME-Approved Specialty Certification Programs	3
Approved Specialty Fellowships	3
OR Procedures	26,735
Outpatient Visits	80,697
Admissions	23,239
Patient Days	69,985
Average Length of Stay (Days)	6.24

In Memoriam**Michael J. Walker, M.D., 1946–2008**

The Department of Surgery expresses its sorrow on the death, on September 1, 2008, of friend and colleague Michael J. Walker, M.D., associate professor of surgery in the Division of Surgical Oncology.



Dr. Michael J. Walker was an expert in all areas of surgical oncology, with a primary patient base in melanoma, breast, and soft tissue sarcoma. A tenured associate professor in the Department of Surgery and the Department of Pathology, he was an attending physician at The Ohio State University Medical Center and the Arthur G. James Cancer Hospital and Richard J. Solove Research Institute. From 2001 to 2003, he was acting chief of staff at the James.

Dr. Walker received a bachelor of science degree at the University of Toronto and his medical degree at the State University of New York at Syracuse, both on scholarship. He then completed an internship at Rhode Island Hospital, in Providence. For two years, he served his country as a commissioned officer in the U.S. Public Health Service–Indian Health Service. He completed his surgical training at the University of Illinois Medical Center at Chicago, with a general surgery residency, a research fellowship, and a fellowship in the Department of Surgical Oncology.

In 1982, Dr. Walker joined the faculty of the Department of Surgical Oncology at the University of Illinois, where he rose to the level of associate professor. He remained there until 1989, when he joined the faculty at Ohio State. A skilled surgeon, Dr. Walker was one of the first to use sentinel node biopsy in the diagnosis of cancer. He was a highly regarded researcher who presented nationally and internationally, a well-published author, and a contributor to numerous clinical trials. He was also an active member of professional associations, societies, and committees. Dr. Walker received many honors and awards throughout his career. A well-respected teacher and mentor of medical students, residents, and fellows, he repeatedly received the Department of Surgery's Faculty Teaching Award, for dedication to surgical education and excellence in teaching.

To honor Dr. Walker, the Department of Surgery established the Michael J. Walker Teaching Award and the Michael J. Walker Lectureship in Surgical Oncology.

Department Administration

E. Christopher Ellison, M.D.

Chairman

Robert L. Ruberg, M.D.

Senior Vice Chairman for Administrative Affairs

W. Scott Melvin, M.D.

Vice Chairman for Academic Affairs

Mark W. Arnold, M.D.

Vice Chairman for Surgical Education

Chandan K. Sen, Ph.D.

Vice Chairman for Research

Steven M. Steinberg, M.D.

Vice Chairman for Clinical Affairs

Jerome A. Johnson, Ph.D.

Administrator

Raymond M. Manley

Executive Director, OSU Surgery, LLC



Ellison



Ruberg



Melvin



Arnold



Sen



Steinberg



Johnson



Manley

Administrative Staff

Mark Dickman

Director, Surgery Information Systems

Elizabeth Hanson

Resident Coordinator

Megan Hesson

Systems Analyst, Surgery Information Systems

K. Christopher Kaiser

Budget Analyst

Anna Patterson

Student Coordinator

Darrell Peters

Publications Editor

Heidi Pieper

Program Assistant in Surgical Education

Connie Roberson

Fiscal Manager

Donna Sampsill

Administrative Assistant to the Chairman

Roxanne Shull

Research Coordinator

Renee Troyer

Executive Assistant to the Vice Dean

Maxine Vargas

Human Resources Administrator

Division Chiefs

Donna A. Caniano, M.D.

Pediatric Surgery

William B. Farrar, M.D.

Surgical Oncology

Mitchell L. Henry, M.D.

Transplantation

W. Scott Melvin, M.D.

General and Gastrointestinal Surgery

Michael J. Miller, M.D.

Plastic Surgery

Steven M. Steinberg, M.D.

Critical Care, Trauma, and Burn

Benjamin C. Sun, M.D.

Cardiothoracic Surgery

Patrick S. Vaccaro, M.D.

Vascular Diseases and Surgery

Faculty Appointments

Joel B. Anderson, M.D.

Clinical Assistant Professor of Surgery, Center for Minimally Invasive Surgery

B.S.: Grand Valley State University, Allendale, Mich., 1999

M.D.: Michigan State University, East Lansing, Mich., 2003

Specialty Training: Michigan State University, East Lansing, Mich., 2003–2008

Appointment: 2008

Specialty Interests: Minimally invasive surgery

Research Interests: Minimally invasive surgery

Previous Appointment: Resident in general surgery, Michigan State University, East Lansing, Mich.



Anderson

James H. Boehmler, IV, M.D.

Assistant Professor of Surgery, Division of Plastic Surgery

B.A.: University of Chicago, Chicago, Ill., 1997

M.D.: University of Rochester, Rochester, N.Y., 2001

Specialty Training: Plastic surgery, Georgetown University, Washington, D.C., 2007; fellowship in reconstructive microsurgery, University of Texas M.D. Anderson Cancer Center, Houston, Texas, 2008

Appointment: 2008

Specialty Interests: Oncologic reconstructive surgery

Previous Appointment: Fellow in plastic surgery, University of Texas M.D. Anderson Cancer Center, Houston, Texas



Boehmler

Sebastian V. Demyttenaere, M.D.

Clinical Assistant Professor of Surgery, Center for Minimally Invasive Surgery

M.D.: McGill University, Montreal, Quebec, Canada, 2002

M.S.: McGill University, Montreal, Quebec, Canada, 2006

Specialty Training: McGill University Health Centre, Montreal, Quebec, Canada, 2002–2008

Appointment: 2008

Specialty Interests: Minimally invasive surgery

Research Interests: Minimally invasive surgery

Previous Appointment: Resident in general surgery, McGill University Health Centre, Montreal, Quebec, Canada



Demyttenaere

Michael R. Go, M.D.

Assistant Professor of Surgery, Division of Vascular Diseases and Surgery

B.S.: Duke University, Durham, N.C., 1996

M.D.: University of Cincinnati, Cincinnati, Ohio, 2000

M.S.: The Ohio State University, Columbus, Ohio, 2005

Specialty Training: General surgery internship and residency, The Ohio State University, Columbus, Ohio, 2006; Vascular and endovascular surgery fellowship, University of Pittsburgh Medical Center, Pittsburgh, Pa., 2008

Appointment: 2008

Specialty Interests: General vascular surgery, endovascular surgery

Research Interests: Endovascular surgery, stem cell therapy for limb ischemia

Previous Appointment: Fellow in vascular and endovascular surgery, University of Pittsburgh Medical Center, Pittsburgh, Pa.



Go

Syed G. Husain, M.D.

Assistant Professor of Clinical Surgery, Division of General and Gastrointestinal Surgery

M.B.B.S.: Dow Medical College, Karachi, Pakistan

Specialty Training: Residency in general surgery, Harlem Hospital Center, New York, N.Y.; fellowship in clinical research, University of Illinois at Chicago; fellowship in minimally invasive surgery, University of Rochester, Rochester, N.Y.; fellowship in colorectal surgery, Brown University, Providence, R.I.

Appointment: 2008

Specialty interests: Minimally invasive colorectal surgery

Research Interests: Natural orifice transluminal endoscopic surgery (NOTES)

Previous Appointment: Fellow in colorectal surgery, Brown University, Providence, R.I.



Husain

William G. Kraybill, M.D.

Professor of Surgery, Division of Surgical Oncology

B.A.: Earlham College, Richmond, Ind., 1965

M.D.: University of Cincinnati, Cincinnati, Ohio, 1969

Specialty Training: University of Oregon Health Sciences Center, Portland, Ore.

Appointed: 2008

Specialty Interests: Malignant melanoma and other aggressive skin cancers, soft tissue sarcomas

Research Interests: Clinical trials in tumors, multidisciplinary management of tumors, whole body hyperthermia

Previous Appointment: Professor and vice chairman of surgery, University of Missouri, Kansas City, Mo.



Kraybill

Louis B. Louis, IV, M.D.

Assistant Professor of Surgery, Division of Cardiothoracic Surgery

B.A.: Virginia Military Institute, Lexington, Va., 1994

M.D.: University of Miami, Miami, Fla., 1998

Specialty Training: The Ohio State University Medical Center, Columbus, Ohio

Appointment: 2008

Specialty Interests: Adult cardiac surgery, surgery for heart failure, mechanical circulatory support, cardiac transplantation, cardiovascular surgical critical care

Previous Appointment: Fellow in mechanical circulatory support, The Ohio State University Medical Center, Columbus, Ohio



Louis

Carl R. Schmidt, M.D., M.S.C.I.

Assistant Professor of Clinical Surgery, Division of Surgical Oncology

B.S.: University of Michigan, Ann Arbor, Mich., 1995

M.D.: University of Michigan, Ann Arbor, Mich., 1999

Specialty Training: General surgery residency, Vanderbilt University Medical Center, Nashville, Tenn.; surgical oncology fellowship, Memorial Sloan-Kettering Cancer Center, New York, N.Y.

Appointment: 2008

Specialty Interests: Gastrointestinal and hepatobiliary malignancies

Research Interests: Novel therapeutic strategies and imaging modalities for metastatic liver tumors

Previous Appointment: Fellow in surgical oncology, Memorial Sloan-Kettering Cancer Center, New York, N.Y.



Schmidt

Stanislaw P. Stawicki, M.D.

Assistant Professor of Surgery, Division of Critical Care, Trauma, and Burn

B.A.: University of Louisville, Louisville, Ky., 1997

M.D.: University of Louisville, Louisville, Ky., 2001

Specialty Training: Residency in general surgery, St. Luke's Hospital and Health Network, Temple University Clinical Campus, Bethlehem, Pa.; fellowship in traumatology and surgical critical care, Hospital of the University of Pennsylvania, Philadelphia, Pa.

Appointment: 2008

Specialty Interests: Trauma, surgical critical care, emergency surgery

Research Interests: Geriatric trauma, role of comorbidities in trauma

Previous Appointment: Fellow in trauma and surgical critical care, Hospital of the University of Pennsylvania, Philadelphia, Pa.



Stawicki

Paul A. Vesco, M.D.

Assistant Professor of Surgery, Division of Cardiothoracic Surgery

B.A.: Washington and Jefferson College, Washington, Pa., 1993

M.D.: University of Kentucky, Lexington, Ky., 1997

Specialty Training: The Ohio State University Medical Center, Columbus, Ohio

Appointment: 2008

Specialty Interests: Minimally invasive robotic cardiac and thoracic surgery

Previous Appointment: Fellow in cardiothoracic surgery, The Ohio State University Medical Center, Columbus, Ohio



Vesco

Melissa L. Whitmill, M.D.

Assistant Professor of Clinical Surgery, Division of Critical Care, Trauma, and Burn

B.S.: Columbia Union College, Takoma Park, Md., 1995

M.D.: Wright State University, Dayton, Ohio, 2001

Specialty Training: Residency in general surgery, Wright State University, Dayton, Ohio; fellowship in surgical critical care, Henry Ford Hospital, Detroit, Mich.

Appointment: 2008

Specialty Interests: Trauma, surgical critical care, emergency surgery

Previous Appointment: Fellow in surgical critical care, Henry Ford Hospital, Detroit, Mich.



Whitmill

Brian J. Winkleman, M.D.

Clinical Assistant Professor of Surgery, Center for Minimally Invasive Surgery

B.S.: Indiana University, Bloomington, Ind., 1999

M.D.: Indiana University, Indianapolis, Ind., 2003

Specialty Training: The Ohio State University Medical Center, Columbus, Ohio

Appointment: 2008

Specialty Interests: Minimally invasive surgery

Research Interests: Minimally invasive surgery, duodenal ulcer disease, colorectal cancer screening

Previous Appointment: Resident in general surgery, The Ohio State University Medical Center, Columbus, Ohio



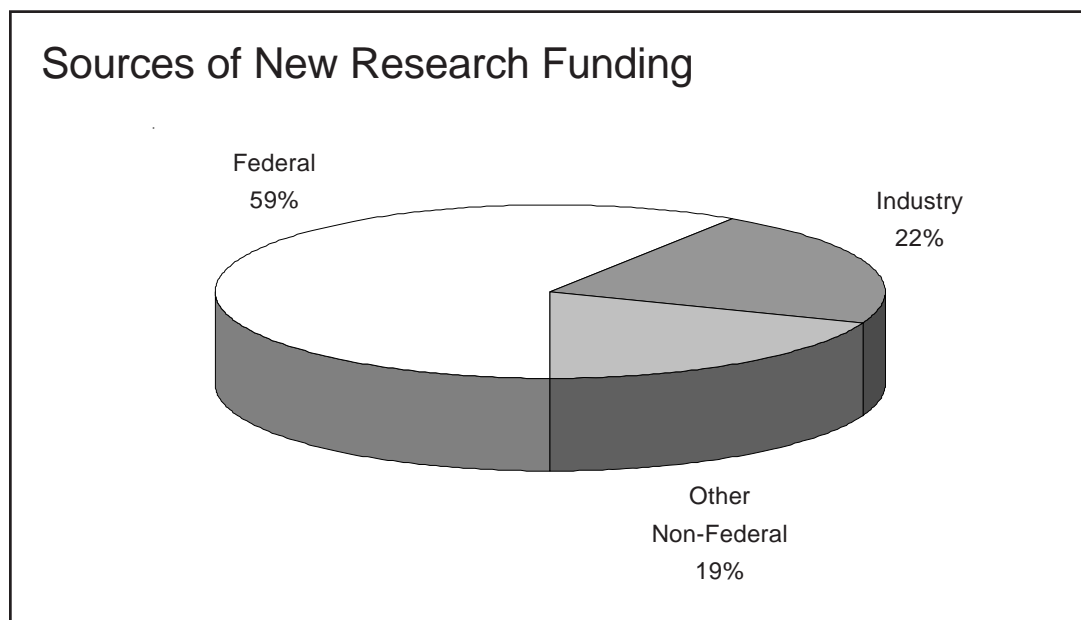
Winkleman

New Research Funding

During fiscal year 2008–2009, new research funding awarded through The Ohio State University Research Foundation to principal investigators in the Department of Surgery totaled more than \$4.1 million.

New federal funding was more than \$2.4 million, or 59 percent of total funding. New non-federal funding was more than \$1.6 million, or 41 percent of the total.

Sources	Amounts
Federal	\$2,448,967
Industry	\$890,874
Other Non-Federal	\$791,833
GRAND TOTAL	\$4,131,674



Graduate Programs in Surgery

The surgical residency programs at The Ohio State University Medical Center share a common goal: to provide an environment conducive to learning, in which physicians prepare to function as well-qualified, independent specialists in surgery.

This year, 82 residents and fellows participated in the department's 10 residency programs, which consist of four residencies accredited by the Accreditation Council for Graduate Medical Education (ACGME), three ACGME-approved specialty certification programs, and three approved specialty fellowships. These programs provide training in cardiothoracic surgery, general surgery, minimally invasive surgery, pediatric surgery, plastic surgery, surgical critical care, surgical oncology, transplantation, and vascular surgery.

Surgical residents at Ohio State are dedicated to learning and teaching advanced surgical techniques and procedures, and assume a major responsibility for the clinical education of medical students. The integrated and affiliated institutions of the program provide clinical resources for graduate and undergraduate surgical education. Ohio State's Medical Center and the Department of Surgery host a variety of forums and seminars, where clinicians and researchers share their expertise and advance the profession.

Research is a vital component of the Department of Surgery's mission and an integral element of its training programs. Research efforts are focused on key areas of interest that promise to yield significant results in the understanding of disease and in the improvement of clinical care. The Department of Surgery's Office of Surgical Research promotes interdisciplinary research activity and the integration of clinical and basic science research. The department's stature and the reputation of its researchers and clinicians enable it to garner significant funding from private industry and from federal sources, such as the National Institutes of Health.

Residency and Fellowship Program Graduates

Twenty-four residents and fellows completed their training programs this year. Nine went on to community practice, eight to further training, and five to academic appointments. Two residents had not yet decided on a position at the time of graduation. One fellow is scheduled to complete his program in October 2009. The residents and fellows were:

Jennifer H. Aldrink, M.D.

Dr. Aldrink completed the residency in pediatric surgery and began an appointment as assistant professor of clinical surgery in Ohio State's Division of Pediatric Surgery, located at Nationwide Children's Hospital.

Joel B. Anderson, M.D.

Dr. Anderson completed the fellowship in advanced therapeutic endoscopy and gastrointestinal surgery and joined the attending staff at Marymount Hospital and Hillcrest Hospital, Cleveland Clinic affiliates, in Cleveland, Ohio.

Lloyd G. Brown, M.D.

Dr. Brown completed the residency in general surgery and began a fellowship in critical care at the University of Michigan, in Ann Arbor, Mich.

Andrew O. Crockett, M.D.

Dr. Crockett completed the fellowship in surgical critical care and is continuing the residency in general surgery at Ohio State.

Sebastian V. Demyttenaere, M.D.

Dr. Demyttenaere completed the fellowship in minimally invasive surgery and began an appointment as assistant professor of surgery at McGill University, in Montreal, Canada.

Mary E. Dillhoff, M.D.

Dr. Dillhoff completed the master of medical science program and is continuing the residency in general surgery at Ohio State.

Laura M. Figura, M.D.

Dr. Figura completed the residency in plastic surgery and began a staff appointment at St. Vincent's Hospital, in Erie, Pa.

Richard B. Fries, M.D.

Dr. Fries completed the fellowship in vascular surgery and began practice with Cardiac, Vascular, and Thoracic Surgeons, Inc., in Cincinnati, Ohio.

Dana M. Goldberg, M.D.

Dr. Goldberg completed the residency in plastic surgery and began private practice in West Palm Beach, Fla.

Kristan D. Guenterberg, M.D.

Dr. Guenterberg completed the master of medical science program and is continuing the residency in general surgery at Ohio State.

Nabil A. Habash, M.D.

Dr. Habash completed the residency in plastic surgery and began the reconstructive microsurgery fellowship at Ohio State.

Clinton R. "C.R." Hall, M.D.

Dr. Hall completed the residency in general surgery and began the fellowship in minimally invasive surgery at Ohio State.

Amy M. Jarvis, M.D.

Dr. Jarvis completed the fellowship in surgical critical care and began an appointment as an attending surgeon at St. Francis Hospital, in Tulsa, Okla.

Patrick I. McConnell, M.D.

Dr. McConnell is scheduled to complete the fellowship in cardiothoracic surgery October 31, 2009.

Syed A. Mehmood, M.D.

Dr. Mehmood completed the fellowship in cardiothoracic surgery and began private practice in Los Angeles, Calif.

Khaled A. Obeidat, M.D.

Dr. Obeidat completed the fellowship in transplantation and began a fellowship in hepatobiliary surgery and surgical oncology at Mount Sinai Medical Center, in New York, N.Y.

Brian S. Porshinsky, M.D.

Dr. Porshinsky completed the fellowship in surgical critical care and began a joint appointment as assistant professor of surgery in the Division of Critical Care, Trauma, and Burn and the Division of Plastic Surgery at Ohio State.

Mark Prosciak, M.D.

Dr. Prosciak completed the fellowship in surgical critical care.

Cameron L. Rink, Ph.D.

Dr. Rink completed the doctoral degree program and began an appointment as assistant professor of surgery in the Division of Vascular Diseases and Surgery at Ohio State.

Mohammadreza Rohaninejad, M.D.

Dr. Rohaninejad completed the residency in general surgery.

Margaret S. Sawyer, M.D.

Dr. Sawyer completed the residency in general surgery and began private practice in Lancaster, Ohio.

Irina Shakhnovich, M.D.

Dr. Shakhnovich completed the master of medical science program and is continuing the residency in general surgery at Ohio State.

Suhail Sharif, M.D.

Dr. Sharif completed the fellowship in surgical oncology and began an appointment as assistant professor of surgery at the University of North Texas/Plaza Medical Center, in Fort Worth, Texas.

Cecilia F. Wang, M.D.

Dr. Wang completed the fellowship in surgical critical care and began an appointment as attending surgeon at St. Francis Hospital, in Tulsa, Okla.

Brian J. Winkleman, M.D.

Dr. Winkleman completed the fellowship in minimally invasive surgery and began an appointment as director of minimally invasive surgery and bariatrics at Provena Saint Joseph Medical Center, in Joliet, Ill.

Annual Surgery Awards Banquet

Outstanding teachers and the 2008–2009 graduates of the Department of Surgery’s training programs were honored June 12, 2009, at the department’s annual awards banquet.

Special Awards

Dr. Clinton R. “C.R.” Hall, chief resident in general surgery, was named Resident of the Year by the Surgery faculty.

Dr. Jon C. Henry was named Intern of the Year by the Surgery faculty.

Heather D. Ratliff, R.N., M.S., C.N.P., nurse practitioner in the Division of Critical Care, Trauma, and Burn, was named Surgical Nurse of the Year by the chief residents in general surgery.

Teaching Awards

Dr. Sherif Abdel-Misih, fellow in surgical oncology, was selected by the general surgery residents to receive a Fellow Teaching Award.

Dr. Clinton R. “C.R.” Hall, chief resident in general surgery, was chosen by the medical students to receive a Resident Teaching Award.

Dr. Alan E. Harzman, assistant professor of clinical surgery in the Division of General and Gastrointestinal Surgery, was selected by the medical students to receive the Michael J. Walker, M.D., Faculty Teaching Award.

Dr. David E. Lindsey, assistant professor of clinical surgery in the Division of Critical Care, Trauma, and Burn, was chosen by Department residents and fellows to receive a Faculty Teaching Award.

Dr. R. Luis Pompa, assistant professor of clinical gastroenterology, was selected by the chief residents in general surgery to receive the John L. Robinson Award, for outstanding teaching by faculty or staff from another department.

Research Awards

Five trainees received awards for outstanding research presentations at the Department of Surgery’s 14th Annual Research Conference, held May 22.

Cameron L. Rink, Ph.D., a postdoctoral researcher in surgery, received the award for the best research presentation by a graduate research associate, for “Characterization of the Therapeutic Potential for Supplemental Oxygen Therapy in Acute Ischemic Stroke.”

Dr. Kristan D. Guenterberg, a general surgery resident in the Master of Medical Science Program (MMSP), received the award for the best research presentation by a resident, for “Enhanced Antitumor Activity of Interferon-Alpha in SOCS1-Deficient Mice Is Mediated by CD4+ and CD8+ T Cells.”

Dr. Peter N. Nau, a general surgery resident in the MMSP, received the second-place award for a research presentation by a resident, for “Safe Alternative Transgastric Peritoneal Access in Humans: NOTES.”

Dr. Meghan R. Forster, a general surgery resident in the MMSP, received the award for the best research presentation as voted by the interns, for “Optimal Ganciclovir Prophylaxis to Prevent Cytomegalovirus Reactivation in Immunocompetent Hosts.”

Dr. Alicia C. Thomas, a general surgery resident in the MMSP, received the award for the best poster presentation, for “Occult Cytomegalovirus Infection in Vivarium-Housed Mice.”

Medical Student Awards

Department of Surgery faculty honored four senior medical students for exceptional performance and dedication to surgery.

Matthew Allemang received the Ferguson Award in Surgery.

Phillip Horne received the Carey Award in Surgery. Horne also received the Barton Williams Graduation Award, a merit scholarship for a graduating fourth-year student in the College of Medicine who intends to complete a surgical residency.

Jeremy Jensen received the Zollinger Award in Surgery.

Jared Peterson received the Jonasson Award in Surgery.

Recognitions

Dr. Mark W. Arnold, professor of clinical surgery in the Division of General and Gastrointestinal Surgery, and vice chairman for surgical education and director of the surgical clerkship in the Department of Surgery, received a Distinguished Educator Award from The Ohio State University College of Medicine.

Dr. Gail E. Besner, professor of surgery in the Division of Pediatric Surgery, was appointed to the Executive Committee of the Surgical Research Committee of the American College of Surgeons.

Dr. Mark Bloomston, assistant professor of surgery in the Division of Surgical Oncology, received the Junior Faculty Award of the Society of University Surgeons at the society's Academic Surgical Congress, Feb. 3–6, 2009, in Fort Myers, Fla. Dr. Bloomston received the one-year, \$30,000 award for his project, "MicroRNA-21 Expression and Function in Pancreatic Adenocarcinoma."

David R. Brigstock, Ph.D., of the Division of Pediatric Surgery, was promoted to professor of surgery in October 2008.

Dr. Charles H. Cook, associate professor of surgery in the Division of Critical Care, Trauma, and Burn and medical director of surgical critical care at The Ohio State University Medical Center, became a member of the American Association for the Surgery of Trauma.

Dr. Elmahdi A. Elkhammas, of the Division of Transplantation, was promoted to professor of clinical surgery in October 2008. Also, on November 26, 2008, Dr. Elkhammas was awarded the 2008 Achievement Award of the Libyan Doctors Society, at the society's fourth annual meeting. The award recognized Dr. Elkhammas for his work as a transplant surgeon and as founder and editor of the Libyan Journal of Medicine, for his support of Libyan and non-Libyan patients and colleagues, and for his publications in international medical journals.

Dr. E. Christopher Ellison, the Robert M. Zollinger professor and chairman of surgery, associate vice president for health sciences, and vice dean of clinical affairs, was elected secretary of the American Surgical Association for 2009 through 2014. Also, Dr. Ellison was named to the Executive Cabinet and the Leadership Council at The Ohio State University Medical Center.

Dr. Ronald M. Ferguson, chairman of the Department of Surgery from 1993 to 1999 and chief of the Division of Transplantation from 1985 to 2005, was appointed emeritus professor of surgery April 1, 2009.

Four faculty members in the Division of Critical Care, Trauma, and Burn passed the surgical critical care certifying examination of the American Board of Surgery. They were: **Dr. David E. Lindsey**, assistant professor of clinical surgery, **Dr. Stanislaw P. Stawicki**, assistant professor of surgery, **Dr. Yalaunda M. Thomas**, assistant professor of surgery, and **Dr. Melissa L. Whitmill**, assistant professor of clinical surgery.

Dr. Marc P. Michalsky, assistant professor of clinical surgery in the Division of Pediatric Surgery, was appointed co-chair of the pediatric committee of the American Society for Metabolic and Bariatric Surgery. Also, he was appointed to the childhood obesity focus group of the National Association of Children's Hospitals and Related Institutions.

Dr. Sidney F. Miller, professor of surgery in the Division of Critical Care, Trauma, and Burn and director of the burn center at The Ohio State University Medical Center, was appointed as a member of the external review panel for the U.S. Army Combat Casualty Care, Combat Critical Care Engineering, Advanced Capabilities for Emergency Medical Monitoring, Automated Critical Care Life Support, and Medical Knowledge Engineering Research programs.

Dr. Susan D. Moffatt-Bruce, assistant professor of surgery in the Division of Cardiothoracic Surgery, was selected by the Center for Clinical and Translational Science (CCTS) at The Ohio State University Medical Center to receive a K12 award for her research project, "The Role of T Cells and Innate Immunity in Cardiac Transplantation."

Sampath Parthasarathy, Ph.D., M.B.A., the Karl P. Klassen professor of surgery and director of research in the Division of Cardiothoracic Surgery, was awarded the Ranbaxy Science Foundation Research Award, in the field of medical sciences and medical research. Parthasarathy received the award March 19, 2009, at the foundation's 15th Annual Symposium, which was held at the All India Institute of Medical Sciences, in Delhi, India. Parthasarathy shared the award with Ajit Varkim, distinguished professor of medicine and cellular and molecular medicine at the University of California, in San Diego.

Dr. Patrick Ross, Jr., of the Division of Cardiothoracic Surgery, was promoted to professor of clinical surgery in October 2008.

Dr. Robert L. Ruberg, professor of surgery in the Division of Plastic Surgery and senior vice chairman for administrative affairs in the Department of Surgery, was named director of the Learning Communities Project in The Ohio State University College of Medicine. Learning communities are faculty-led groups of 12 students who meet monthly over the four years of medical school to discuss issues in learning, leadership, and life as a physician.

Chandan K. Sen, Ph.D., professor of surgery in the Division of General and Gastrointestinal Surgery, vice chairman for research in the Department of Surgery, and associate dean for translational and applied research in the College of Medicine, had a patent granted in January 2009 by the United Kingdom, for his invention called "Methods and Compositions for Wound Healing." In April 2009, Dr. Sen was named to the national Surgery, Anesthesiology and Trauma Study Section, Center for Scientific Review, for July 1, 2009 through June 30, 2013.

Dr. Wiley W. “Chip” Souba, Jr., professor of surgery in the Division of Surgical Oncology, dean of The Ohio State University College of Medicine, and vice president for health sciences at The Ohio State University Medical Center, met with area health care experts and advocates for health care reform on December 30, 2008, to summarize their views and suggestions for a national health plan. The plan was forwarded to the transition team of then President-elect Barack Obama.

Dr. Benjamin C. Sun, associate professor of surgery and chief of the Division of Cardiothoracic Surgery, was granted tenure in October 2008.

Dr. Patrick S. Vaccaro, professor of surgery and chief of the Division of Vascular Diseases and Surgery, was appointed chairman of the Ohio District 3 Committee on Applicants of the American College of Surgeons.

Dr. Michael J. Walker, the late associate professor of surgery in the Division of Surgical Oncology, was remembered during a memorial service September 22, 2008, at The Ohio State University Medical Center. Dr. Walker died September 1, 2008.

In the News

Dr. Doreen M. Agnese, assistant professor of surgery in the Division of Surgical Oncology, discussed genetic testing and counseling during an interview aired September 3, 2008, by WSYX-TV/6. On September 4, 2008, Dr. Agnese participated in a live “Stand Up to Cancer” web chat on 10TV.com. On April 8, 2009, her presentation at the 62nd Annual Cancer Symposium of the Society of Surgical Oncology was the subject of a story in Oncology Nursing News.

Dr. Kenneth A. Andreoni, associate professor of surgery and director of liver transplantation in the Division of Transplantation, was quoted October 14, 2008, by the Associated Press, in a story on kidney transplantation and the kidney distribution system. On March 12, 2009, he was quoted by the Toledo Blade, in a story about kidney transplantation.

Dr. Mark W. Arnold, professor of clinical surgery in the Division of General and Gastrointestinal Surgery, was the subject of an announcement in the January 2, 2009 issue of Business First, which noted that he received a Distinguished Educator Award from The Ohio State University College of Medicine.

Dr. Mark Bloomston, assistant professor of surgery in the Division of Surgical Oncology, was mentioned March 26, 2009, in a Suburban News Publications story about two high school students who are raising money for pancreatic cancer research for their senior thesis project.

Dr. Donna A. Caniano, the H. William Clatworthy, Jr., professor of surgery and chief of the Division of Pediatric Surgery, was profiled in the spring 2009 issue of Capital Style.

Mark Dickman, director of surgery information systems, was pictured in the 2008–2009 onCampus Guide with other top performers in The Ohio State University Medical Center’s Bravo Recognition Program.

Dr. William B. Farrar, professor of surgery and chief of the Division of Surgical Oncology, discussed breast cancer during an interview aired October 30, 2008, by WBNS-TV/10.

Dr. Gayle M. Gordillo, assistant professor of surgery in the Division of Plastic Surgery and director of the plastic surgery laboratory at The Ohio State University Medical Center, was quoted January 21, 2009, by WebMD, in a story about her study demonstrating that blueberry extract can limit tumor formation.

Dr. Jonathan I. Groner, clinical associate professor of surgery and medical director of trauma at Nationwide Children’s Hospital, was quoted July 2, 2008, by the Tucson Citizen, in a story about executions by lethal injection. On September 25, 2008, on ABC News (online), Dr. Groner discussed the potential moral pitfalls of a British philosopher’s suggestion that those suffering from dementia should make a decision to end their own lives. On May 18, 2009, he was quoted by the Columbus Dispatch, in a story about the role of EMTs in executions.

Dr. Clinton R. “C.R.” Hall, chief resident in general surgery; **Dr. Bhagwan Satiani**, professor of clinical surgery in the Division of Vascular Diseases and Surgery and director of non-invasive vascular services at The Ohio State University Medical Center; and **Dr. Thomas E. Williams, Jr.**, clinical associate professor of surgery in the Division of Cardiothoracic Surgery, were quoted January 22, 2009, by the Columbus Dispatch, in a story about the dwindling number of general surgeons.

Dr. Alan E. Harzman, assistant professor of clinical surgery in the Division of General and Gastrointestinal Surgery, discussed the prevalence, symptoms, and treatment of anal cancer during an interview aired June 25, 2009, by WBNS-TV/10.

Dr. Mitchell L. Henry, professor of surgery and chief of the Division of Transplantation, spoke at a ceremony at The Ohio State University Medical Center recognizing organ donors. On April 20, 2009, WSYX-TV/6 aired a story about the ceremony.

Dr. David E. Lindsey, assistant professor of clinical surgery in the Division of Critical Care, Trauma, and Burn, was quoted August 21, 2008, by the Columbus Dispatch, in a story about the approval of trauma triage criteria for geriatric patients.

Dr. Louis B. Louis, IV, assistant professor of surgery in the Division of Cardiothoracic Surgery, discussed a patient who received an implanted left ventricular assist device at The Ohio State University Medical Center, during an interview aired May 8, 2009, by WBNS-TV/10.

Dr. Edward W. Martin, Jr., professor of surgery in the Division of Surgical Oncology, was quoted May 1, 2009, by Business First, in a story about a partnership between Cardinal Health, Inc., and The Ohio State University to develop radioactive diagnostic agents.

Dr. W. Scott Melvin, professor of surgery, vice chairman for academic affairs in the Department of Surgery, chief of the Division of General and Gastrointestinal Surgery, and director of the Center for Minimally Invasive Surgery, was quoted July 8, 2008, by the (New Jersey) Star-Ledger, in a story about incisionless surgery. On March 13, 2009, he was quoted by the Columbus Dispatch, in a story about new research on laparoscopic versus traditional open appendectomies.

Dr. Dean J. Mikami, assistant professor of surgery in the Division of General and Gastrointestinal Surgery, was quoted in the August 2008 issue of O, the Oprah Magazine, in a story on endolumenal bariatric surgery.

Dr. Michael J. Miller, professor of surgery and chief of the Division of Plastic Surgery, was quoted June 2, 2009, by HealthNewsDigest.com, in a story about reconstructive breast surgery. On June 10, 2009, he was quoted by the Ohio News Network, in a story about reconstructive breast surgery.

Dr. Sidney F. Miller, professor of surgery in the Division of Critical Care, Trauma, and Burn and medical director of the Burn Center at The Ohio State University Medical Center, was quoted July 28, 2008, by the Columbus Dispatch, in a story about an increase in Franklin County autopsy rates for

trauma victims. On September 28, 2008, Dr. Miller was quoted by the Columbus Dispatch in a story about a burn victim treated at The Ohio State University Medical Center. The October 2008 issue of Columbus C.E.O. noted his appointment as the first vice president of the American Burn Association. On January 7, 2009, WSYX-TV/6 and WTTE-TV/28 noted the verification of The Ohio State University Medical Center's Burn Center under the direction of Dr. Miller. On May 5–6, 2009, HealthNewsDigest.com noted his appointment as president-elect of the American Burn Association. On June 5, 2009, Dr. Miller was quoted by the Columbus Dispatch, in a story about lightning strikes. On June 26, 2009, he discussed burn prevention in an interview on "Good Day Columbus," on WTTE-TV/28.

Dr. Susan D. Moffatt-Bruce, assistant professor of surgery in the Division of Cardiothoracic Surgery, was quoted June 4, 2009, by the Columbus Dispatch, the Cleveland Plain Dealer, and the Associated Press, in stories about the halting of the lung transplant program at The Ohio State University Medical Center, due to the small number of procedures being performed.

Dr. Stephen P. Povoski, associate professor of surgery in the Division of Surgical Oncology, was shown in a photo accompanying a story about Battelle's contributions to medical technology, in the January 28, 2009 issue of the Columbus Dispatch.

Dr. Amer Rajab, assistant professor of surgery and director of pancreas and islet transplantation in the Division of Transplantation, was quoted July 12, 2008, by the Columbus Dispatch, in a story about a kidney transplant at The Ohio State University Medical Center. On November 25, 2008, Dr. Rajab discussed pancreatectomy with auto-islet cell transplantation during an interview aired by WBNS-TV/10 and the Ohio News Network. On November 27, 2008, he was quoted by the Columbus Dispatch, in a story about the first pancreatectomy with auto-islet cell transplantation procedure performed at Ohio State's Medical Center. On December 2, 2008, Dr. Rajab was quoted by the Springfield News-Sun, in a story about the procedure. The June issue of Columbus C.E.O. noted that he headed the medical team that performed the procedure.

Dr. Robert L. Ruberg, professor of surgery in the Division of Plastic Surgery and senior vice chairman for administrative affairs in the Department of Surgery, was pictured September 28, 2008, by the Columbus Dispatch, in a story about a burn victim treated at The Ohio State University Medical Center.

Chandan K. Sen, Ph.D., professor of surgery in the Division of General and Gastrointestinal Surgery, vice chairman for research in the Department of Surgery, and associate dean for translational and applied research at The Ohio State University College of Medicine, was quoted February 8, 2009, by the Columbus Dispatch, in a story about embryonic stem-cell research.

Dr. Wiley W. "Chip" Souba, Jr., professor of surgery in the Division of Surgical Oncology, dean of the College of Medicine, and vice president for health sciences at The Ohio State University Medical Center, was quoted September 22, 2008, by the Columbus Dispatch, in a story about hospital conflict-of-interest policies. On November 24, 2008, Dr. Souba was quoted by the Columbus Dispatch, in a story about research space at Ohio State's Medical Center. On December 12, 2008, he was quoted by

Business First, in a story about a predicted shortage of general surgeons. On January 30, 2009, Dr. Souba was quoted by Business First, in a story about the need to add research space at The Ohio State University Medical Center. On February 5, 2009, he was quoted by Nature, in a story about the lack of National Institutes of Health funding for promising researchers. On March 27, 2009, Dr. Souba was quoted by Business First, in a story about an expansion at Nationwide Children's Hospital.

Dr. Jean E. Starr, assistant professor of clinical surgery in the Division of Vascular Diseases and Surgery, discussed a clinical trial at The Ohio State University Medical Center examining a new treatment for patients unable to control their high blood pressure with medications and lifestyle changes, during an interview aired February 12, 2009, on WBNS-TV/10.

Dr. Stanislaw P. Stawicki, assistant professor of surgery in the Division of Critical Care, Trauma, and Burn, and **Dr. Melissa L. Whitmill**, assistant professor of clinical surgery in the division, were the subjects of announcements in the September 3, 2008 Columbus Daily Reporter, the September 7, 2008 Columbus Dispatch, and the September 12, 2008 Business First, which noted their appointments to the faculty of the Department of Surgery.

Dr. Steven M. Steinberg, professor of surgery, chief of the Division of Critical Care, Trauma, and Burn, and vice chairman for clinical affairs in the Department of Surgery, discussed an increase in trauma cases in an interview aired July 14, 2008, by WCMH-TV/4, WSYX-TV/6, and WTTE-TV/28. On January 12, 2009, Dr. Steinberg was profiled in a Columbus Dispatch multimedia project on people whose occupations frequently place them in situations where they must confront death. On February 25, 2009, he was quoted by the Columbus Dispatch, in a story about a proposed change to Ohio's seat belt law. On May 18, 2009, Dr. Steinberg discussed the importance of wearing a seat belt during an in-studio interview on "Good Day Columbus," a local morning news program on WTTE-TV/28. On May 20, 2009, he commented on proposed legislation that would increase the speed limit in predominately rural areas, in an interview broadcast by WBNS-TV/10. On June 7, 2009, Dr. Steinberg was quoted by the Columbus Dispatch, in a story about an Ohio State University Medical Center study of outcomes of Level I trauma centers versus those of Level II centers. On June 11, 2009, he was quoted by the Columbus Dispatch, in a story about a patient recovering from necrotizing fasciitis.

Dr. Benjamin C. Sun, associate professor of surgery and chief of the Division of Cardiothoracic Surgery, discussed the case of a patient who received a heart transplant at the Richard M. Ross Heart Hospital, in an interview aired December 4, 2008, by WCMH-TV/4. On April 20, 2009, Dr. Sun discussed a new heart therapy device during an interview broadcast by WBNS-TV/10 and WTVN Radio. On April 23, 2009, he was quoted by the Los Angeles Times, in an online story about a new device designed to assist the pumping action of the heart in patients with moderate heart failure.

Dr. Anne Taylor, clinical assistant professor of surgery in the Division of Plastic Surgery, discussed eyelash growth enhancers recently approved by the Food and Drug Administration, in an interview aired February 25, 2009, by WBNS-TV/10.

Dr. Thomas E. Williams, Jr., clinical associate professor of surgery in the Division of Cardiothoracic Surgery, was quoted December 10, 2008, by Washington Post.com, in a story about a study he authored, which predicts a shortage of general surgeons in the United States by 2010. On December 12, 2008, Dr. Williams was quoted by Business First, in a story about the study.

Distinguished Guests

Frank Arko, M.D.

Frank Arko, M.D., associate professor of surgery and chief of endovascular surgery at the University of Texas Southwestern Medical Center, in Dallas, Texas, presented “Thrombolysis in the Management of DVT: A Current Perspective” at a meeting of the Mid-Ohio Endovascular Club, March 4, 2009.

Juan A. Asensio, M.D.

Juan A. Asensio, M.D., professor of surgery and director of trauma clinical research, training, and community affairs at the University of Miami, in Miami, Fla., presented a Surgery Grand Rounds lecture titled “Difficult Injuries and Difficult Problems in Trauma Surgery,” October 30, 2008.

Robin Avery, M.D.

Robin Avery, M.D., professor of medicine at the Cleveland Clinic Lerner College of Medicine, in Cleveland, Ohio, presented “Treatment of Complex CMV Syndromes in Solid Organ Transplant Patients,” March 25, 2009.

Stanley J. Dudrick, M.D.

Stanley J. Dudrick, M.D., professor of surgery at Yale University, in New Haven, Conn., and emeritus chairman of surgery and program director at St. Mary’s Hospital, in Waterbury, Conn., presented a Surgery Grand Rounds lecture titled “Lessons and Legacies of Total Parenteral Nutrition,” April 9, 2009.

N. Joseph Espat, M.D.

N. Joseph Espat, M.D., professor of surgery and chief of surgical oncology at Boston University, in Boston, Mass., presented a combined Internal Medicine/Surgery Grand Rounds lecture titled “Achieving Balance in an Academic Career,” April 16, 2009.

Rob Fairchild, Ph.D.

Rob Fairchild, Ph.D., professor of molecular medicine at the Cleveland Clinic Lerner College of Medicine and professor of pathology at Case Western Reserve University, in Cleveland, Ohio, presented the 2009 Charles G. Orosz Memorial Lecture, titled “Seeing the Orosz Legacy: Uncorking One Receptor to Expose the Chaos Within,” April 8, 2009.

Lewis Flint, M.D.

Lewis Flint, M.D., adjunct professor of surgery at Northwestern University, in Chicago, Ill., and editor-in-chief of Selected Readings in General Surgery, presented a Surgery Grand Rounds lecture titled “Establishing the Principles of Military and Civilian Injury Care: Samuel David Gross at the University of Louisville, 1840–1856,” March 19, 2009.

Timothy C. Flynn, M.D.

Timothy C. Flynn, M.D., professor and associate chairman of surgery at the University of Florida, in Gainesville, Fla., presented the Annual Robert M. Zollinger Lecture, titled “GME and Health-care Reform,” May 21, 2009.

Brian R. Hopkinson, M.D.

Brian R. Hopkinson, M.D., emeritus professor of vascular and endovascular surgery at the University of Nottingham, in Nottingham, England, presented “A Personal History of Aortic Endovascular Surgery” at a meeting of the Mid-Ohio Endovascular Club, on November 19, 2008, and as the Surgery Grand Rounds lecture, November 20, 2008.

W. Anthony Lee, M.D.

W. Anthony Lee, M.D., associate professor of surgery in the Division of Vascular Surgery and Endovascular Therapy at the University of Florida, in Gainesville, Fla., presented “Current Endovascular Management of Type B Aortic Dissections” at a meeting of the Mid-Ohio Endovascular Club, May 7, 2009.

John H. Marks, M.D.

John H. Marks, M.D., assistant clinical professor of surgery at MCP Hahnemann University, in Philadelphia, Pa., and chief of the section of colorectal surgery at Lankenau Hospital, in Wynnewood, Pa., presented a Surgery Grand Rounds lecture titled “Rectal Cancer Management: Sphincter Preservation and Minimally Invasive Techniques,” October 2, 2008.

Frank R. Miele, M.S.E.E.

Frank R. Miele, M.S.E.E., president of Pegasus Lectures, in Dallas, Texas, presented “A Refresher on the Physics of Vascular Ultrasound” at the Noninvasive Vascular Testing Symposium, November 1, 2008.

Maurice Nahabedian, M.D.

Maurice Nahabedian, M.D., of Georgetown University Hospital, in Washington, D.C., presented “Current Trends in Breast Surgery,” September 26, 2008.

Douglas K. Ousterhout, M.D.

Douglas K. Ousterhout, M.D., clinical professor of surgery at the University of California at San Francisco, presented “Facial Surgery for Gender Reassignment,” November 21, 2008.

Linda G. Phillips, M.D.

Linda G. Phillips, M.D., professor and chairman of plastic surgery at the University of Texas Medical Branch, in Galveston, Texas, presented “Post-Bariatric Body Contouring,” “Wound Healing and Pressure Sores,” and “The Importance of Research in Plastic Surgery,” January 29–30, 2009.

Erik G. Van Eaton, M.D.

Erik G. Van Eaton, M.D., fellow in surgical critical care at the University of Washington Affiliated Hospitals, in Seattle, Wash., presented a system-wide grand rounds lecture titled “Beyond Shift Work: Taking a Hands-On Approach to Patient Hand-Offs,” September 25, 2008.

Integrated and Affiliated Hospitals

The Ohio State University Medical Center

Consistently recognized as one of America's best hospitals, The Ohio State University Medical Center is dedicated to patient care, research, and medical education. An institution with advanced diagnostic and therapeutic capabilities and more than 900 licensed beds, Ohio State's Medical Center is a major tertiary referral center and a Level I trauma center with a helicopter transport service. A network of primary care centers refers patients to the Medical Center's comprehensive patient management system.



*The Ohio State University
Medical Center*

The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute

Dedicated to care of the cancer patient and to cancer research, the Arthur G. James Cancer Hospital and Richard J. Solove Research Institute is the only freestanding cancer hospital in Ohio and is one of 16 charter members of the National Comprehensive Cancer Network. An institution with 160 licensed beds, the James is adjacent to Ohio State's Medical Center.



The James Cancer Hospital

The Richard M. Ross Heart Hospital

Home to Ohio State's nationally-ranked heart program and dedicated exclusively to the care of patients with cardiovascular disease, the Richard M. Ross Heart Hospital is a 150-bed, state-of-the-art institution offering advanced imaging and surgical technologies and patient care facilities. The hospital adjoins Ohio State's Medical Center.



The Ross Heart Hospital

University Hospital East

A full-service hospital with an emphasis on family medicine, orthopedic care, and emergency medicine, University Hospital East is located on the near east side of Columbus, six miles from Ohio State.



University Hospital East

Nationwide Children's Hospital

The fifth-largest freestanding children's hospital in the United States, Nationwide Children's Hospital provides a broad spectrum of services, from advanced neonatal intensive care and surgery to primary and secondary medical care. Children's Hospital is fully integrated with the training programs of the College of Medicine and The Ohio State University Medical Center. A Level I trauma center, Children's is located just east of downtown Columbus, five miles from Ohio State.

Grant Medical Center

Located in the heart of downtown Columbus, five miles from Ohio State, Grant Medical Center is a busy, respected hospital and a Level I trauma center.

Mount Carmel West

An active and respected health-care provider, Mount Carmel West is located just west of downtown Columbus, five miles from Ohio State.

Riverside Methodist Hospital

Known for high-quality care, Riverside Methodist Hospital is located on the north side of Columbus, four miles from Ohio State.

Chairmen of the Department of Surgery

1914–1916	Dr. William J. Means
1916–1922	Dr. Verne A. Dodd (Head of Clinical Surgery)
1922–1926	Dr. Charles S. Hamilton
1927–1946	Dr. Verne A. Dodd (Head of Clinical Surgery)
1936–1952	Dr. George M. Curtis (Chairman of Surgical Research)
1946–1974	Dr. Robert M. Zollinger
1975–1986	Dr. Larry C. Carey
1987–1992	Dr. Olga Jonasson
1993–1998	Dr. Ronald M. Ferguson
1999 – present	Dr. E. Christopher Ellison

A Legacy of Leadership

A bronze bust of Dr. Edwin H. Ellison is on exhibit in the Department of Surgery's display case on the sixth floor of 395 West 12th Avenue, in recognition of the former faculty member's contributions to The Ohio State University Medical Center.

Dr. Ellison joined the faculty of the department in 1946, after completing his residency in general surgery at Ohio State, under the mentorship of Dr. Robert M. Zollinger, then chairman of the department.

Dr. Ellison and Dr. Zollinger went on to perform the landmark studies that resulted in their identification of the disorder now known as Zollinger-Ellison syndrome, a condition characterized by intractable peptic ulcers, gastric hypersecretion and hyperacidity, and the occurrence of gastrinomas of the pancreatic cells of the islets of Langerhans. Their findings were published in *Annals of Surgery* in 1955.

Dr. Ellison served on the surgical faculty at Ohio State for 12 years. During this time, his achievements as a gifted clinical physician and technical surgeon, inspiring educator, and accomplished surgical investigator were important influences in the department's rapid development and success after World War II.

In 1958, Dr. Ellison accepted an appointment as professor and chairman of surgery at Marquette University School of Medicine, now the Medical College of Wisconsin, in Milwaukee.

At Marquette, Dr. Ellison trained Dr. Larry C. Carey, who later, from 1975 to 1985, would serve as professor and chairman of surgery at Ohio State.

While at Ohio State, Dr. Carey trained Ellison's son, Dr. E. Christopher Ellison, now the Robert M. Zollinger professor and chairman of surgery, associate vice president for health sciences, and vice dean of clinical affairs at The Ohio State University Medical Center.

"Dr. [Edwin] Ellison was unique," Dr. Carey said during a 1994 interview. "He had a remarkable ability to get more out of people than was in them. He convinced all of us that we were a lot better than we were, and having done so, he helped us achieve more than we might have."

Under Dr. Ellison's leadership, the surgical faculty at Marquette made important contributions to the field of gastrointestinal surgery, and the department and its academic reputation grew and flourished.



Bust of Dr. Edwin H. Ellison

Dr. Ellison died in 1970. He is remembered as a successful leader in academic surgery who made significant contributions to the profession of surgery, both at The Ohio State University Medical Center and at the Medical College of Wisconsin.

The bust of Dr. Ellison was sculpted by artist Anna D. Christoforidis, who also created the bust of Dr. Zollinger exhibited in the department's display case.

Also on Exhibit

Also on exhibit is a set of surgical instruments that belonged to Dr.

Robert M. Zollinger, chairman of the Department of Surgery from 1946 to 1974.

The instruments, a pair of Metzenbaum surgical scissors, were presented to Dr. Zollinger in 1970 by the then chief residents in general surgery: Dr. Michael F. Kaplan, Dr. Avram R. Kraft, Dr. Paul C. Redmond, Dr. Gary M. Richardson, and Dr. Thomas T. Vogel.

The instruments were donated to the Department of Surgery by Dr. Zollinger's son, Dr. Robert M. Zollinger, emeritus professor of surgery at Case Western Reserve University, in Cleveland, Ohio.



Instruments presented to Dr. Robert M. Zollinger

Cardiothoracic Surgery



Benjamin C. Sun, M.D.
Chief, Division of Cardiothoracic Surgery

This academic year has been one of the most challenging in recent memory for the Division of Cardiothoracic Surgery. The economic challenges that all of us have faced this year have affected our division as well. This becomes particularly frustrating when all traditional markers of divisional health, such as increasing clinical volume, lower mortality, high patient satisfaction, increase in research funding, and increased national and international recognition, have all continued to improve for our group. In addition, fewer candidates are interested in entering our challenging field. We are already seeing a shortage in cardiothoracic surgeons in the United States. Despite these challenges, I believe we've just passed an inflection point. Our division is poised for continued growth in all of our mission charges: clinical productivity, research productivity, and education.

Clinical Programs

Our division was the first in North America to offer robotic cardiothoracic surgery, beginning in 1999. With the evolution of the newer techniques and instrumentation, our team is able to provide therapies that until recently were only a dream. Our surgeons perform many thoracic and cardiac procedures robotically. In fact, our team is one of only a handful in the world able to provide totally robotically-assisted closed chest, beating heart, coronary bypass grafting.

Dr. John Sirak has developed and published a new version of the thoracoscopic Maze procedure that provides validation for each of the lesion sets. This has great potential for increasing the efficacy of this procedure for our patients in atrial fibrillation. In addition, our team was the first in the world to do this procedure robotically.

Our mechanical circulatory support program continues to grow in volume and national recognition. We performed more than 95 mechanical circulatory support procedures this year, with an additional 21

adult ECMO procedures. Because of the success of our program, we have access to support devices that very few institutions can offer. We can therefore provide a more personalized option for our patients requiring mechanical support.

With the successful recruitment of Dr. Edmund Kassis, who completed his cardiothoracic training at the M.D. Anderson Cancer Center and will join the division July 1, 2009, we are enthusiastic about revitalizing our foregut surgical options.

Research Programs

Dr. Sampath Parthasarathy continues to lead our research program and was successful in acquiring an additional R01 grant from the National Institutes of Health. This year, our group generated 32 published journal articles and abstracts and 43 presentations at national and international meetings. Our division is participating in more than 30 ongoing clinical trials.

Education

The cardiothoracic surgery residency program recently underwent its cycled review and received full accreditation. Two fellows completed the program in June 2009. Dr. Syed Mehmood took a private practice position in Los Angeles, Calif., and Dr. Patrick McConnell took an academic position at Nationwide Children's Hospital and The Ohio State University Medical Center.

We are beginning to face a shortage in cardiothoracic surgeons, as there are substantially more cardiothoracic surgeons retiring (approximately 133 per year) than are being trained (approximately 100 per year). With a growing and aging population, we are already seeing the results of this discrepancy unfold. We presented our findings on this shortage at the first morning plenary session of the American Association for Thoracic Surgery this year. Our analysis has been validated by other sources, including the Institute of Medicine. Our challenge in the coming years will be to attract the best and the brightest students to our field. Lifestyle and quality of life will be important, as will producing exciting innovations in cardiothoracic surgery.

Faculty

Benjamin C. Sun, M.D.

Associate Professor of Surgery; Chief, Division of Cardiothoracic Surgery; Director, Cardiac Transplantation and Mechanical Support

B.S.: Yale University, New Haven, Conn., 1984

M.D.: State University of New York, Stony Brook, N.Y., 1989

Specialty Training: University of North Carolina Hospitals, Chapel Hill, N.C.; Columbia-Presbyterian Medical Center, New York, N.Y.

Appointment: 2002

Specialty Interests: Heart transplantation

Research Interests: Direct mechanical ventricular actuation



Sun

Juan A. Crestanello, M.D.

Assistant Professor of Surgery

M.D.: University of the Republic of Uruguay Medical School, Montevideo, Uruguay

Specialty Training: General surgery residency, University of Maryland Medical System, Baltimore, Md.; cardiothoracic surgery research, Hahnemann University, Philadelphia, Pa., and University of Maryland, Baltimore, Md.

Appointment: 2004

Specialty Interests: Cardiac surgery

Research Interests: Ischemic preconditioning, mitochondrial function during ischemic preconditioning, myocardial ischemia reperfusion injury, cell transplantation, the effect of myocardial oxygen content on survival of transplanted cells



Crestanello

Michael S. Firstenberg, M.D.

Assistant Professor of Surgery

B.A.: University of Chicago, Chicago, Ill., 1990

M.D.: Case Western Reserve University, Cleveland, Ohio, 1996

Specialty Training: Ohio State University Medical Center, Columbus, Ohio; Cleveland Clinic, Cleveland, Ohio; National Heart, Lung, and Blood Institute, Bethesda, Md.; University Hospitals, Cleveland, Ohio

Appointment: 2007

Specialty Interests: Adult acquired and congenital cardiac surgery, cardiothoracic critical care, mechanical assist, heart failure

Research Interests: Cardiac imaging and physiology, mechanical assist



Firstenberg

Mark Galantowicz, M.D.

Associate Professor of Clinical Surgery

B.A.: University of Pennsylvania, Philadelphia, Pa., 1982

M.D.: Cornell University Medical College, New York, N.Y., 1987

Specialty Training: Columbia-Presbyterian Medical Center, New York, N.Y.

Appointment: 2002

Specialty Interests: Pediatric transplantation and surgery



Galantowicz

Pawel Kwiatkowski, M.D.

Research Assistant Professor of Surgery

B.A.: ILO Swietochlowice, Poland, 1982

M.D.: Silesian Academy of Medicine, Katowice, Poland, 1988

Specialty Training: Silesian Academy Medical Center, Zabrze, Poland; Columbia University, New York, N.Y.

Appointment: 1998

Research Interests: Transplant immunology, including xenotransplantation and allotransplantation of heart and lung



Kwiatkowski

Louis B. Louis, IV, M.D.

Assistant Professor of Surgery

B.A.: Virginia Military Institute, Lexington, Va., 1994

M.D.: University of Miami, Miami, Fla., 1998

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 2008

Specialty Interests: Adult cardiac surgery, surgery for heart failure, mechanical circulatory support, cardiac transplantation, cardiovascular surgical critical care



Louis

Susan D. Moffatt-Bruce, M.D., Ph.D.

Assistant Professor of Surgery

B.A.: McGill University, Montreal, Quebec, Canada, 1990

M.D.: Dalhousie University, Halifax, Nova Scotia, Canada, 1994

Ph.D.: University of Cambridge, Cambridge, United Kingdom, 1999

Specialty Training: Residency in general surgery, Dalhousie University, Halifax, Nova Scotia, Canada; fellowship in cardiothoracic surgery, Stanford University, Palo Alto, Calif.

Appointment: 2006

Specialty Interests: Lung transplant, heart transplant, transplant outcomes, thoracic oncology

Research Interests: Transplant immunology



Moffatt-Bruce

Sampath Parthasarathy, Ph.D., M.B.A.

The Karl P. Klassen Professor of Surgery; Director of Research, Division of Cardiothoracic Surgery

Ph.D.: Indian Institute of Science, Bangalore, India, 1975

M.B.A.: University of Phoenix, 2004

Specialty Training: Kyoto University, Kyoto, Japan; Duke University, Durham, N.C.; the Hormel Institute, University of Minnesota, Austin, Minn.

Appointment: 2006

Research Interests: Vascular biology and medicine



Parthasarathy

Alistair B. M. Phillips, M.D.

Assistant Professor of Surgery

B.S.: Johns Hopkins University, Baltimore, Md., 1990

M.D.: Columbia University, New York, N.Y., 1994

Specialty Training: Residency in general and cardiothoracic surgery, New York-Presbyterian Hospital and Weill Cornell Medical Center, New York, N.Y.; fellowship in pediatric cardiac surgery, Columbia University Medical Center, New York, N.Y.

Appointment: 2006

Specialty Interests: Pediatric cardiothoracic surgery



Phillips

Patrick Ross, Jr., M.D., Ph.D.

Professor of Clinical Surgery

A.B.: Harvard University, Cambridge, Mass., 1977

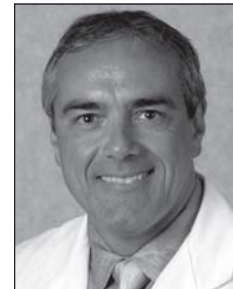
M.D., Ph.D.: St. Louis University, St. Louis, Mo., 1983

Specialty Training: University of Pennsylvania, Philadelphia, Pa.

Appointment: 1991

Specialty Interests: Lung volume reduction, thoracic surgical oncology, benign noncardiac thoracic disease, lung transplantation

Research Interests: New modality lung cancer therapy



Ross

Chittoor B. Sai-Sudhakar, M.B.B.S., F.A.C.S., F.R.C.S.

Assistant Professor of Surgery

B.A.: Loyola College, Madras, India, 1975

B.Sc.: Presidency College, Madras, India, 1976

M.B.B.S.: Stanley Medical College, Madras, India, 1982

Specialty Training: Yale-affiliated residency, St. Mary's Hospital, Waterbury, Conn.

Appointment: 2003

Specialty Interests: Aortic surgery, heart failure

Research Interests: Pathways in endothelial cells



Sai-Sudhakar

John H. Sirak, M.D.

Assistant Professor of Clinical Surgery

B.A.: Amherst College, Amherst, Mass., 1985

M.D.: Case Western Reserve University, Cleveland, Ohio, 1991

Specialty Training: General surgery residency, minimally invasive cardiothoracic surgery fellowship, The Ohio State University, Columbus, Ohio; arrhythmia surgery fellowship, Cleveland Clinic, Cleveland, Ohio

Appointment: 2004

Specialty Interests: Surgery for atrial fibrillation

Research Interests: Transplant immunology



Sirak

Alexandru M. Vaida, M.D.

Assistant Professor of Surgery

B.A.: St. Sava National College, Bucharest, Romania

M.D.: University of Medicine and Pharmacy, Targu-Mures, Romania, 1995

Specialty Training: Ohio State University Medical Center, Columbus, Ohio; Targu-Mures General Hospital, Targu-Mures, Romania; Veterans Affairs Medical Center, Richmond, Va.; Medical College of Virginia Hospitals, Richmond, Va.

Appointment: 2006

Specialty Interests: Thoracic oncology, lung transplant, esophageal surgery



Vaida

Paul A. Vesco, M.D.

Assistant Professor of Surgery

B.A.: Washington and Jefferson College, Washington, Pa., 1993

M.D.: University of Kentucky, Lexington, Ky., 1997

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 2008

Specialty Interests: Minimally invasive robotic cardiac and thoracic surgery



Vesco

Emeritus Faculty

J. Terrance Davis, M.D.

Professor Emeritus of Clinical Surgery

B.A.: Williams College, Williamstown, Mass., 1963

M.D.: University of Pennsylvania, Philadelphia, Pa., 1967

Gerard S. Kakos, M.D.

Clinical Associate Professor Emeritus of Surgery

B.A.: The Ohio State University, Columbus, Ohio, 1964

M.D.: The Ohio State University, Columbus, Ohio, 1967

James W. Kilman, M.D.

Professor Emeritus of Surgery

B.S.: Indiana State University, Terre Haute, Ind., 1956

M.D.: Indiana State University, Indianapolis, Ind., 1960

Charles V. Meckstroth, M.D.

Professor Emeritus of Surgery

B.A.: The Ohio State University, Columbus, Ohio, 1944

M.D.: The Ohio State University, Columbus, Ohio, 1947

M.M.Sc. (Surgery): The Ohio State University, Columbus, Ohio, 1950

Howard D. Sirak, M.D.

Professor Emeritus of Surgery

A.B.: University of Pennsylvania, Philadelphia, Pa., 1943

M.D.: The Ohio State University, Columbus, Ohio, 1947

M.M.Sc. (Surgery): The Ohio State University, Columbus, Ohio, 1953

Clinical Faculty

Thomas E. Williams, Jr., M.D., Ph.D.

Clinical Associate Professor of Surgery

B.A.: Princeton University, Princeton, N.J., 1957

M.S., M.D.: The Ohio State University, Columbus, Ohio, 1963

Ph.D.: Northwestern University, Evanston, Ill., 1969

Resident Staff

Murtaza Dawood, M.D.

PGY-6

B.S.: University of Maryland, College Park, Md., 1997

M.D.: Saba University, Netherlands-Antilles, 2002

Brian Goodman, M.D.

PGY-6

B.S.: University of Miami, Coral Gables, Fla., 1996**M.D.:** University of Vermont, Burlington, Vt., 2003**Patrick McConnell, M.D.**

PGY-7

B.S.: Creighton University, Omaha, Neb., 1994**M.D.:** University of Nebraska, Omaha, Neb., 1999**Syed Mehmood, M.D.**

PGY-7

B.S.: University of Michigan, Ann Arbor, Mich., 1997**M.D.:** Rosalind Franklin University of Medicine and Science/Chicago Medical School, Chicago, Ill., 2002

Mission

The Division of Cardiothoracic Surgery is dedicated to preserving and improving life for patients with heart and lung disease.

Research Programs

- AB5000 Circulatory Support System Data Registry.
- CardioWest Temporary Total Artificial Heart post-market surveillance study.
- Chronic heart failure model in sheep.
- Chronic unloading therapy with Heartmate II VAD in an ovine ischemic cardiomyopathy model.
- Circulating endothelial cells and thrombosis.
- Clinical trial of the On-X Prosthetic Heart Valve using low-dose anticoagulation.
- Collaborative study of mitochondrial function in ischemia.

- Comparative clinical and pharmacoeconomic study comparing Argatroban IV vs. Desirudin SC for patients with suspected heparin-induced thrombocytopenia (HIT) without clinically evident thrombosis: PREVENT-HIT.
- Comparative mutational profiling as the standard of care in assessing lung lesions.
- C-Pulse implantable counterpulsation pump for treating heart failure.
- Destiny trial: effects of mitral valve annuloplasty with the GeoForm Ring on left ventricular geometry and function in patients with cardiomyopathy.
- Dietary oxidized lipids and atherosclerosis.
- Evaluation of glycemic control in cardiac surgery patients.
- Evaluation of the HeartWare LVAD system for the treatment of advanced heart failure.
- Heartmate II VAD destination therapy.
- Heartmate II VAD imaging study.
- Heartware BTT.
- The immunobiology of insulin resistance: the role of T regulatory cells.
- Immunobiology of photodynamic therapy in lung cancer patients.
- Immunobiology of transplant-related heart failure.
- INTERMACS (Interagency Registry for Mechanically-Assisted Circulatory Support).
- Levitronix CentriMag LVAS for failure to wean CPB.
- Mechanical, cellular, and pharmacological therapy for congestive heart failure.
- Mechanisms of bronchiolitis obliterans in pediatric and adult lung transplants.
- Medtronic Mosaic vs. Carpentier-Edwards Perimount all-cause patient survival.
- Multicenter study comparing thymectomy to no thymectomy in myasthenia gravis patients on prednisone.
- Non-pharmacological dietary modulation of atherosclerosis by sesame oil.

- A novel approach to generate regulatory T cells using CD103 depletion.
- OSU Heart Center biobank.
- Oxidation hypothesis: paradoxes and pitfalls.
- Patient discharge using the AB Portable Driver System.
- Pilot study assessing robotic video-assisted thoracic surgery (RATS) versus standard thoracotomy for malignant lesions.
- Preclinical cardiac device study.
- A prospective, multicenter, randomized, clinical study to evaluate the PleuraSeal Sealant System as an adjunct to standard closure techniques for control of visceral pleural air leaks following elective pulmonary resection via open thoracotomy.
- A randomized, controlled, Phase 3 study of gentamicin-collagen sponge (Collatamp G) in cardiac surgical subjects at higher risk for sternal wound infection.
- A randomized, multicenter, double-blind, group-sequential study to evaluate the efficacy, immunogenicity, and safety of a single dose of Merck 0657nI staphylococcus aureus vaccine V710 in adult patients scheduled for cardiothoracic surgery.
- A randomized study to compare sizing, implant techniques and hemodynamic performance between the Mitroflow and the Carpentier-Edwards Magna pericardial tissue valves in the aortic position.
- Impella Recover I 5.0.
- A retrospective and prospective study of patients with atrial fibrillation and the postoperative outcomes, quality of life, and arrhythmia reoccurrence rates after undergoing the total thoracoscopic Maze procedure.
- Role and mechanism of oxygen tension and oxidative stress in regulating the development of intimal hyperplasia in human saphenous veins cultures ex vivo.
- Role of dietary oxidized lipids in atherosclerosis.
- Role of endothelial nitric oxide synthase in local blood pressure regulation in patients with vascular disease.
- Role of macrophages in acute cellular rejection in cardiac transplantation.
- Schering-Plough CABG clinical research study.

- Simultaneous carotid endarterectomy and cardiac surgery.
- STICH protocol for surgical treatment of ischemic heart failure.
- Study of factors that prevent improvement in left ventricular function after surgical revascularization.
- Study to determine the presence of oxidized low density lipoproteins (Ox-LDL) and its degradation products in the blood and left ventricular tissue of patients with heart failure.
- Supravalvular aortic stenosis.
- Thoratec left ventricular assist device congestive heart failure sheep.
- Thrombosis model of heart failure in sheep.
- Tissue/serum repository for cardiac and thoracic surgery.
- VAD watch telehealth monitoring in the residential setting.
- VentrAssist bridge to transplant.
- VentrAssist destination therapy.

Accomplishments in Research

- Dr. Pawel Kwiatkowski was credited with two patents: “Spin Probes and Measurements for Minimally Invasive Monitoring and Imaging of Cardiovascular Events” and “Use of Paramagnetic Particles to Monitor Effectiveness of Cell Transplantation.”
- Dr. Pawel Kwiatkowski was the recipient of the 2009 OSU Undergraduate Enrichment Award for “The Detection of Heart Failure Biomarker Using Sheep-Specific Antibodies: Optimization of the Assay Protocol.”
- Dr. Pawel Kwiatkowski was a judge of scientific abstracts in the Cardiovascular Surgery Section for The Ohio State University Medical Center’s Annual Research Day, on April 2, 2009.
- Dr. Pawel Kwiatkowski was a judge of medical sciences abstracts for The Ohio State University’s Denman Undergraduate Research Forum, on May 13, 2009.
- Dr. Sampath Parthasarathy received the Medical Science Award of the Ranbaxy Foundation, in New Delhi, India.

- Dr. Sampath Parthasarathy was credited with two inventions: “Methods for Making Multi-targeted Methylenedioxyphenol-based Compositions and Uses Thereof” and “Labeling of Liposomes with Cholesteryl-9-carboxynonanoate for Improved Stability and Pharmacokinetics and Using Them as Targeted MRI Probes.”
- Gregory Steinbaugh received a \$650 travel award from The Ohio State University’s Office of Postdoctoral Programs.

Active Research Grants

Crestanello J. Are mitochondria-mediated free oxygen radicals mediators of preconditioning? 2007 American College of Surgeons Faculty Research Fellowship, July 1, 2007 – June 30, 2009, \$80,000.

Crestanello J. Destiny trial: effects of mitral valve annuloplasty with the GeoForm Ring on left ventricular geometry and function in patients with cardiomyopathy. Edwards Lifesciences, November 3, 2006 – November 3, 2009, \$57,190.

Crestanello J. Measurement of free radical generation in the heart. National Institutes of Health, Minority Supplemental Grant R01, March 1, 2006 – to November 30, 2009, \$112,125/year.

Crestanello J. Postconditioning, free oxygen radical generation and mitochondrial function. Thoracic Surgery Foundation for Research and Education, 2008 Research Grant, July 1, 2008 – June 30, 2010, \$60,000.

Diaz PT, Ross P Jr. Clinical center for the National Emphysema Treatment Trial (NETT). National Heart, Lung, and Blood Institute, December 20, 1996 – December 31, 2008, \$573,871.

Kissel JT, Ross P Jr. Thymectomy in non-thymomatous MG patients on prednisone. University of Alabama at Birmingham, April 1, 2006 – August 31, 2008, \$1,500.

Kuppusamy P, Kwiatkowski P. Noninvasive monitoring of in situ oxygenation and cell therapy in infarcted heart. National Institutes of Health, R01, July 1, 2007 – June 30, 2012, \$1,250,000.

Moffatt-Bruce S, Astor T. Mechanisms of bronchiolitis obliterans in pediatric and adult lung transplants. 2008–2009 Ohio State University/Nationwide Collaborative Research Award, August 1, 2008 – December 31, 2009, \$50,000.

Moffatt-Bruce S, Hadley G. The role of macrophages in acute cellular rejection in cardiac transplant rejection. Clinical and Translational Science Award, K12 Scholars Award 2009–2011, \$196,000/year.

Parthasarathy S. Adherent and non-adherent macrophages in cell survival and death. American Heart Association, Great Rivers Affiliate, July 1, 2008 – June 30, 2010, \$21,000.

Parthasarathy S. Dietary oxidized lipids and atherosclerosis. National Institutes of Health, R01, July 1, 2000 – February 28, 2009, \$225,000/year.

Parthasarathy S. Novel mechanisms by which aspirin might protect against atherosclerosis. National Heart, Lung, and Blood Institute, R01, July 1, 2008 – June 30, 2013, \$250,000/year.

Parthasarathy S. Oxidation hypothesis: paradoxes and pitfalls. National Institutes of Health, R01, December 1, 2001 – July 31, 2009, \$250,000/year.

Phillips ABM. Cytoskeletal alterations in a porcine model of restrictive ventricular septal defect. Society of Cardiovascular Anesthesiologists, September 1, 2008 – August 31, 2010, \$40,000 for two years.

Sai-Sudhakar CB. Anticoagulation strategy with bioprosthetic valves postoperative event registry (ANSWER). Duke University, August 10, 2007 – August 9, 2008, \$8,150.

Sai-Sudhakar CB. Clinical trial of the On-X valve using low dose anticoagulation. Medical Carbon Research Institute, LLC, December 1, 2006 – November 30, 2013, \$3,600.

Sai-Sudhakar CB. Investigating the prevalence and role of autoantibodies to endothelial cells in patients following acute myocardial infarction and in congestive heart failure. Ross Academic Enrichment Grant, 2008–2009, \$78,000.

Sai-Sudhakar CB. Potential auto-antibodies to endothelial cells and their role in angiogenesis and neovascularization following acute coronary events. Davis/Bremer Research Grant, 2008–2010, \$50,000 annually for two years.

Sai-Sudhakar CB. A randomized, controlled, phase 3 study of gentamicin-collagen sponge (Collatamp G) in cardiac surgical subjects at higher risk for sternal wound infection. Duke University, February 11, 2008 – December 31, 2009, \$14,520.

Sidell N, Parthasarathy S. Nuclear antioxidants in the prevention of endometriosis. Emory Consortium, July 1, 2008 – June 30, 2010, \$37,500.

Sirak JH. Stentless porcine bioprostheses for aortic valve replacement model NR-200 Plus and model NR-200C Plus No React treated porcine bioprostheses for aortic valve replacement. Shelhigh, Inc., March 10, 2006 – March 10, 2010, \$96,000.

Sun B. AB5000 circulatory support system data registry. Abiomed, Inc., April 26, 2005 – December 31, 2008, \$12,398.

Sun B. Clinical evaluation of the HeartMate II LVAS study. Thoratec Corp., April 26, 2005 – December 31, 2008, \$200,444.

Sun B. Preclinical cardiac device study. BioVentrix, February 29, 2008 – June 30, 2010, \$215,000.

Sun B. SynCardia CardioWest Temporary Total Artificial Heart (TAH-t) post-market surveillance study. SynCardia Systems, Inc., October 27, 2006 – July 24, 2009, \$3,300.

Sun B, Binkley PF. Surgical treatment for ischemic heart failure (STICH). Duke University, June 17, 2002 – May 31, 2009, \$255,888.

Sun B, Crestanello JA. CentriMag VAS: use as an RVAS following implantation of a commercially-approved LVAS. Levitronix, LLC, September 2, 2005 – September 1, 2008, \$10,000.

Sun B, Feldman DS, Sai-Sudhakar C. Levitronix CentriMag short-term ventricular assist system. Levitronix, LLC, April 26, 2005 – December 31, 2008, \$6,000.

Clinical Programs

- Adult cardiothoracic surgery.
- Aortic surgery.
- Arrhythmia surgery.
- Heart failure surgery.
- Heart transplantation.
- Heart-lung transplantation.
- Lung transplantation.
- Lung volume reduction surgery.
- Mechanical circulatory support.
- Minimally invasive heart surgery.
- Photodynamic therapy.

- Robotic surgery.
- Thoracic oncology.
- Total artificial heart transplantation.

Accomplishments in Clinical Care

- Dr. Patrick Ross, Jr. was chief of staff-elect of the Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, Columbus, Ohio, 2007–2009.

Clinical Statistics

OR Procedures	2,682
Outpatient Visits	7,602
Admissions	1,732
Patient Days	18,688
Average Length of Stay (Days)	9.38

Educational Programs

- Two-year cardiothoracic surgery fellowship accredited by the Accreditation Council for Graduate Medical Education.
- One-year fellowship in mechanical circulatory support.
- Comprehensive rotation in cardiothoracic surgery for first- and third-year residents in general surgery.

Accomplishments in Education

- Awarding to Dr. Susan Moffatt-Bruce of the 2009 OSU College of Medicine Excellence in Teaching Award for the Department of Surgery.

- Awarding to Dr. Paul Vesco of the Best Case Presentation Award for “Pulmonary Embolectomy for Acute Massive Pulmonary Embolus,” at the Chest 2008 Conference, Philadelphia, Pa., October 25–30, 2008.
- Completion of the cardiothoracic surgery fellowship by Dr. Syed Mehmood in June 2009.
- Accreditation of the Congenital Fellowship Program at Nationwide Children’s Hospital. The program is one of six certified congenital fellowship programs in cardiothoracic surgery in the United States.
- Awarding of the Samuel J. Roessler Memorial Medical Research Scholarships to medical students Harrison Jackson and Joseph Meyerson, under the direction of their research advisor, Dr. Susan Moffatt-Bruce; and to medical student Shashir Sharma, under the direction of his research advisor, Dr. Juan Crestanello.

Miscellaneous Achievements

Michael S. Firstenberg, M.D.

- Listed in *Who’s Who in America*, 2008, 2009, 2010.
- Question writer, Self-Education Self-Assessment in Thoracic Surgery (SESATS X).
- Manuscript reviewer, the Journal of Cardiac Failure, Circulation (Imaging), and the European Journal of Heart Failure.
- Editorial board member, Cardiovascular Diseases for “Case Reports in Medicine.”
- Posting moderator, www.sermo.com.
- Elected as a fellow of the American College of Cardiology (FACC).

Mark Galantowicz, M.D.

- Listed in *International Who’s Who of Professionals*, 2008.
- Listed in *Who’s Who in America*, 2008.
- *Who’s Who in the World*, 2008, 2009.

Alistair B. M. Phillips, M.D.

- Listed in *America’s Top Surgeons*, 2009.

Benjamin C. Sun, M.D.

- Editor, Adult Cardiac Section, Self-Education Self-Assessment in Thoracic Surgery (SESATS X).

Publications

Bauer JA, Moffatt-Bruce SD, Elton TS, Feldman D. Purine metabolism in heart failure: oxidant biology and therapeutic indications. *Congestive Heart Failure* 2008; 14(5):283–284.

Blais DM, Sun B, Vesco P, Louis LB, Sai-Sudhakar C, Firstenberg MS. Profound thrombocytopenia with glycoprotein IIb/IIIa inhibitors plus heparin for pump thrombus. *J Heart Lung Transplant* 2008; 27(12):1361–1362.

Crestanello JA, Orsinelli DA, Firstenberg MS, Sai-Sudhakar C. Aortic valve thrombosis after implantation of temporary left ventricular assist device. *Interact Cardiovasc Thorac Surg* 2009; 8(6):661–662.

Crouser ED, Culver DA, Knox KS, Julian MW, Shao GH, Abraham S, Liyanarachchi S, Macre JE, Wewers MD, Gavrilin MA, Ross P, Abbas A, Eng C. Gene expression profiling identifies MMP-12 and ADAMDEC1 as potential pathogenic mediators of pulmonary sarcoidosis. *Am J Respir Crit Care Med* 2009; 179(10):929–938.

Firstenberg MS, Blais D, Rea G, Bush CA. Post-infarct ventricular septal defect following thrombolytic intracranial bleed. *Interact Cardiovasc Thorac Surg* 2009; 8(3):379–381.

Firstenberg MS, Louis LB, Sai-Sudhakar CB, Sun BC. Organ donation following brain death after long-term left ventricular mechanical support. *J Heart Lung Transplant* 2008; 27(7):815–816.

Garelnabi M, Selvarajan K, Litvinov D, Santanam N, Parthasarathy S. Dietary oxidized linoleic acid lowers triglycerides via APOA5/APOC111 dependent mechanisms. *Atherosclerosis* 2008; 199(2):304–309.

Holzer RJ, Wood A, Chisolm JL, Hill SL, Phillips A, Galantowicz M, Cheatham JP. Atrial septal interventions in patients with hypoplastic left heart syndrome. *Catheter Cardio Inte* 2008; 72(5):696–704.

Jaichander P, Selvarajan K, Garelnabi M, Parthasarathy S. Induction of paraoxonase 1 and apolipoprotein A-I gene expression by aspirin. *J Lipid Res* 2008; 49(10):2142–2148.

Khan M, Kutala VK, Wisel S, Chacko SM, Kuppusamy ML, Kwiatkowski P, Kuppusamy P. Measurement of oxygenation at the site of stem cell therapy in a murine model of myocardial infarction. *Adv Exp Med Biol* 2008; 614:45–52.

Moffatt-Bruce SD, Pesavento T, Von Viger J, Nunley D, Pope-Harman A, Martin S, Ross P. Successful management of immunosuppression in a patient with severe hyperammonemia after lung transplantation. *J Heart Lung Transplant* 2008; 27(7):801–803.

Moffatt-Bruce SD, Povoski SP, Sharif S, Hall NC, Ross P, Johnson MA, Martin EW. A novel approach to positron emission tomography in lung cancer. *Ann Thorac Surg* 2008; 86(4):1355–1357.

Phillips ABM, Green J, Bergdall V, Yu J, Monreal G, Gerhardt M, Cheatham JP, Galantowicz M, Holzer RJ. Teaching the “hybrid approach”: a novel swine model of muscular ventricular septal defect. *Pediatr Cardiol* 2009; 30(2):114–118.

Raghavamenon A, Garelnabi M, Babu S, Aldrich A, Litvinov D, Parthasarathy S. alpha-Tocopherol is ineffective in preventing the decomposition of preformed lipid peroxides and may promote the accumulation of toxic aldehydes: a potential explanation for the failure of antioxidants to affect human atherosclerosis. *Antioxid Redox Signal* 2009; 11(6):1237–1248.

Rodeman R, John T, Phillips A. Seeing the whole picture: video-assisted cardioscopy is helping both perioperative teams and patients achieve better outcomes. *OR Nurse* 2008; 2(10):44–47.

Sirak J, Jones D, Sun B, Sai-Sudhakar C, Crestanello J, Firstenberg M. Toward a definitive, totally thoracoscopic procedure for atrial fibrillation. *Ann Thorac Surg* 2008; 86(6):1960–1964.

Sopirala MM, Pope-Harman A, Nunley DR, Moffatt-Bruce S, Ross R, Martin SI. Multidrug-resistant acinetobacter baumannii pneumonia in lung transplant recipients. *J Heart Lung Transplant* 2008; 27(7):804–807.

Steinhour E, Sherwani SI, Mazerik JN, Ciapala V, Butler EO, Cruff JP, Magalang U, Parthasarathy S, Sen CK, Marsh CB, Kuppusamy P, Parinandi NL. Redox-active antioxidant modulation of lipid signaling in vascular endothelial cells: vitamin C induces activation of phospholipase D through phospholipase A(2), lipoxygenase, and cyclooxygenase. *Mol Cell Biochem* 2008; 315(1–2):97–112.

Sun BC, Firstenberg MS, Louis LB, Panza A, Crestanello JA, Sirak J, Sai-Sudhakar CB. Placement of long-term implantable ventricular assist devices without the use of cardiopulmonary bypass. *J Heart Lung Transplant* 2008; 27(7):718–721.

Sun QH, Yue P, Deiuliis JA, Lumeng CN, Kampfrath T, Mikolaj MB, Cai Y, Ostrowski MC, Lu B, Parthasarathy S, Brook RD, Moffatt-Bruce SD, Chen LC, Rajagopalan S. Ambient air pollution exaggerates adipose inflammation and insulin resistance in a mouse model of diet-induced obesity. *Circulation* 2009; 119(4):538–546.

Wisel S, Khan M, Kuppusamy ML, Mohan IK, Chacko SM, Rivera BK, Sun BC, Hideg K, Kuppusamy P. Pharmacological preconditioning of mesenchymal stem cells with trimetazidine (1-[2,3,4-trimethoxybenzyl]piperazine) protects hypoxic cells against oxidative stress and enhances recovery of myocardial function in infarcted heart through Bcl-2 expression. *J Pharmacol Exp Ther* 2009; 329(2):543–550.

Abstracts

Bonilla D, Firstenberg MS, Blais D, Louis LB, Weiss R, Hummel JD, Yanssens T, Wissman S, Sun B, Sai-Sudhakar CB. Role of implantable cardioverter-defibrillators in patients with left ventricular assist devices. *J Heart Lung Transplant* 2009; 28(2):S85.

Crestanello JA, Lee DS, Steinbaugh GE, Pfeiffer DR, Zweier JL. Ischemic preconditioning selectively protects subsarcolemmal mitochondrial respiration against ischemic injury. *J Am Coll Cardiol* 2009; 53(10):A307.

Firstenberg MS, Blais D, Sai-Sudhakar C, Hasan A, Louis LB, Talbott D, Sun B, Crestanello J, Vesco PA. Late bleeding and thrombotic complications with continuous flow ventricular assist devices. *J Heart Lung Transplant* 2009; 28(2):S275.

Higashi Y, Sukhanov S, Parthasarathy S, Delafontaine P. The ubiquitin ligase Nedd4 mediates oxidized low-density lipoprotein-induced downregulation of insulin-like growth factor-1 receptor in human aortic smooth muscle cells: implications for atherosclerotic plaque destabilization. *Circulation* 2008; 118(18):S559.

Joddar B, Reen RK, Firstenberg M, Gooch KJ. Role of Oxygen tension and oxidative stress in human saphenous vein remodeling. *Circulation* 2008; 118(18):S1017.

Lee D, Steinbaugh G, Zweier J, Crestanello JA. Mitochondrial respiratory complex I and II activities are preserved by ischemic preconditioning. *J Surg Res* 2009; 151:230.

Louis L, Sai-Sudhakar CB, Vesco PA, Firstenberg MS, Hasan AK, Sun BC. Off-pump placement of implantable LVAD's results in significant reductions of transfusion requirements and re-exploration for hemorrhage. *J Heart Lung Transplant* 2009; 28:S131.

Martin S, Wellington I, Stevenson K, Sai-Sudhakar C, Firstenberg M, Blais D, Louis L, Sun BC. Risk of infection after LVAD placement for long-term support by body-mass index and device type. *J Heart Lung Transplant* 2009; 28(2):S67.

Sirak J, Jones D, Sun B, Sai-Sudhakar C, Crestanello J, Firstenberg M. Toward a definitive, totally thoracoscopic procedure for atrial fibrillation. *Circulation* 2008; 118(18):S984.

Steinbaugh GE, Lee DS, Pfeiffer DR, Zweier JL, Crestanello JA. Ischemic preconditioning protects mitochondrial respiratory function in complex I and complex II. *J Am Coll Cardiol* 2009; 53(10):A309.

Vesco PA, Firstenberg MS, Sood N, Crestanello J. Successful embolectomy in a patient with acute pulmonary embolism and cardiac arrest. *Chest* 2008; 134:c21001.

International Presentations

Bonilla D, Firstenberg M, Blais D, Louis S, Weiss R, Hummel JD, Yanssens T, Wissman S, Sun B, Sai-Sudhakar CB. Role of implantable cardioverter-defibrillators in patients with left ventricular assist devices. International Society for Heart and Lung Transplantation, 29th Annual Meeting and Scientific Sessions, Paris, France, April 22–25, 2009.

Crestanello JA. Fronteras en el tratamiento de revascularización en la cardiopatía isquémica. Symposium: Comité de Cirugía Cardíaca y Hemodinamia. 24 Congreso Uruguayo de Cardiología (24th Uruguayan Congress of Cardiology), Montevideo, Uruguay, December 4, 2008.

Crestanello JA. Insuficiencia cardíaca: indicaciones quirúrgicas de la IM con mala FEVI (mitral regurgitation with poor LVEF: surgical indications). 24 Congreso Uruguayo de Cardiología (24th Uruguayan Congress of Cardiology), Montevideo, Uruguay, December 4, 2008.

Crestanello JA. Insuficiencia cardíaca: más allá del tratamiento médico óptimo: cirugía Mitral en la insuficiencia cardíaca dilatada no isquémica (Mitral valve surgery in non-ischemic dilated cardiomyopathy). 24 Congreso Uruguayo de Cardiología (24th Uruguayan Congress of Cardiology), Montevideo, Uruguay, December 5, 2008.

Crestanello JA. Mitral valve repair with the GeoForm ring. Symposium: Comité Cirugía Cardíaca, 24 Congreso Uruguayo de Cardiología (24th Uruguayan Congress of Cardiology), Montevideo, Uruguay, December 4, 2008.

Crestanello JA. Valvulopatías en situaciones especiales, debate: insuficiencia mitral en la cardiopatía dilatada (Debate: mitral regurgitation in congestive heart failure). 24 Congreso Uruguayo de Cardiología (24th Uruguayan Congress of Cardiology), Montevideo, Uruguay, December 4, 2008.

Firstenberg MS, Blais D, Sai-Sudhakar CB, Hasan A, Louis LB, Talbott D, Sun B, Crestanello J, Vesco P. Late bleeding and thrombotic complications with continuous flow ventricular assist devices. International Society for Heart and Lung Transplantation, 29th Annual Meeting and Scientific Sessions, Paris, France, April 24, 2009.

Kwiatkowski P. Heart failure and new therapies. International Surgical Research Conference, Warsaw, Poland, February 23–27, 2009.

Louis L, Sai-Sudhakar CB, Vesco P, Firstenberg M, Hasan A, Sun B. Off-pump placement of implantable LVAD's results in significant reductions of transfusion requirements and re-exploration for hemorrhage. International Society for Heart and Lung Transplantation, 29th Annual Meeting and Scientific Sessions, Paris, France, April 22–25, 2009.

Parthasarathy S. Risk factors, management, ACS, metabolic syndrome, and stroke. South Asian Society on Atherosclerosis and Thrombosis, Ninth International Symposium, New Delhi, India, October 10, 2008.

Phillips ABM. Intraoperative pulmonary artery stents: technique and results. Tips and Tricks in Congenital and Structural Interventions, Milan, Italy, September 18–20, 2008.

Sun BC (Moderator). Risk of infection after LVAD placement for long-term support by BMI and device type. International Society for Heart and Lung Transplantation, 29th Annual Meeting and Scientific Sessions, Building Bridges to Transport with Mechanical Support, Paris, France, April 22–25, 2009.

National Presentations

Adolph M, Taylor RM, Ross P, McCarthy H, Loseth D, Frier K, Kelsey M, Heister D, Dabold L, Begue A, Vaida A, Moffatt-Bruce S. Evaluation of transdisciplinary care for thoracic surgery patients in cancer survivorship and at the end of life. American Academy of Hospice and Palliative Medicine and Palliative Nurses Association, Annual Assembly, Austin, Texas, March 25–28, 2009.

Adolph MD, Taylor RM, Ross P, Vaida AM, Moffatt-Bruce SD. Evaluating cancer patient satisfaction before and after daily multidisciplinary care for thoracic surgery inpatients. American Society of Clinical Oncology, Orlando, Fla., May 29 – June 2, 2009.

Crestanello JA. Mitochondrial respiratory complex I and II activities are preserved by ischemic preconditioning. Fourth Annual Academic Surgical Congress, Fort Myers, Fla., February 5, 2009.

Crestanello JA. Mitral valve surgery for CHF: surgical results. American College of Cardiology, 58th Annual Scientific Session, Joint Session of the Spanish Society of Cardiology and the American College of Cardiology: Mitral and Tricuspid Valvular Heart Disease, Orlando, Fla., March 30, 2009.

Crestanello JA, Lee DS, Steinbaugh GE, Pfeiffer DR, Zweier JL. Ischemic preconditioning selectively protects subsarcolemmal mitochondrial respiration against ischemic injury. American College of Cardiology, 58th Annual Scientific Session, Orlando, Fla., March 29, 2009.

Crestanello JA, Lee D, Steinbaugh GE, Pfeiffer DR, Zweier JL. Mitochondrial respiratory complex I and II activities are preserved by ischemic preconditioning. National Heart, Lung, and Blood Institute, 16th Annual Cardiovascular Diversity Research Supplement Awardee Session, Orlando, Fla., November 8, 2008.

Crestanello JA, Lockhart A, Firstenberg M, Sai-Sudhakar CB, Sirak J, Louis L, Vesco P, Nathan N, Sun B. Mitral annuloplasty with the GeoForm ring for ischemic cardiomyopathy: one-year results. American Association for Thoracic Surgery, Boston, Mass., May 9–13, 2009.

Galantowicz ME (Invited Speaker). Hybrid intervention: the hypoplastic left heart, surgical aspects with results. Pediatric and Adult Interventional Cardiac Symposium, Las Vegas, Nev., July 22–23, 2008.

Galantowicz ME (Course Director). New technologies and procedures in congenital and acquired heart surgery. American Association for Thoracic Surgery, Boston, Mass., May 9, 2009.

Hall WA, Wang L, Clarke J, Otterson G, Wang J, Villalona M, Hoang T, Mayr N, Ross P, Grecula JC. Modulation of radiation response of non-small cell lung cancer cells with poly (ADP-ribose) polymerase inhibitor: ABT-888. American Society for Therapeutic Radiology and Oncology, Boston, Mass., September 21–25, 2008.

Lawson VH, Voth LA, Moffatt-Bruce SD, Nunley DR, Ross P Jr, Carter SD, Pope-Harman AL. Predictors of neuropathy after lung transplantation. American Academy of Neurology, 61st Annual Meeting, Seattle, Wash., April 25 – May 2, 2009.

Liu S, Annest LS, Phillips A, Tran T, Raman S, Sai-Sudhakar CB, Zhang P, Choi J, Hong G, Louis L, Pu M, Sun B, Vannan M. Quantitative characterization of left ventricular apical morphology and mechanics by echocardiography and cardiovascular magnetic resonance imaging in an ovine model of LV apical aneurysm: implications for LV epicardial catheter-based ventricular reconstruction (ECVR). American College of Cardiology, 58th Annual Scientific Session, Orlando, Fla., March 28–31, 2009.

Liu S, Annest L, Sai-Sudhakar CB, Hong G, Louis L, Kwiatkowski P, Phillips A, Raman S, Zhang P, Houle H, Choi J, Vannan M, Sun B. Improved left ventricular shape and myocardial mechanics after transcatheter left ventricular reconstruction (Dor procedure) in sheep with chronic left apical aneurysm: an intracardiac and transthoracic echocardiography study. American Heart Association, Scientific Sessions, New Orleans, La., November 8–12, 2008.

Moffatt-Bruce SD, Ross P Jr, Tam M. The role of regulatory T cells in photodynamic therapy of lung cancer. American Thoracic Society, International Conference, San Diego, Calif., May 15–20, 2009.

Monreal G, Nicholson LM, Phillips AB, Bauer JA, Gerhardt MA. Endocardial desmin in heart failure. Experimental Biology 2009 Conference, New Orleans, La., April 18–22, 2009.

Parthasarathy S. Cardiovascular disease. Fifth International Conference on Cell Therapy for Cardiovascular Disease, New York, N.Y., January 13–16, 2009.

Parthasarathy S. Induction of PON1 and ApoA-1 gene expression by aspirin. International Conference on Paraoxonases, Los Angeles, Calif., September 9–10, 2008.

Parthasarathy S. Potential role of mitochondrial dysfunction in diabetic hypertriglyceridemia. Council on Arteriosclerosis, Thrombosis and Vascular Biology, Annual Meeting, Washington, D.C., April 29 – May 2, 2009.

Sai-Sudhakar CB, Parthasarathy S, Phillips A, Moffatt-Bruce S, Sun B, Kwiatowski P. Novel ovine model of heart failure induced by autologous platelet aggregates. Fifth International Conference on Cell Therapy for Cardiovascular Disease, New York Academy of Medicine, New York, N.Y., January 14, 2009.

Sirak J. Four-box verification in a totally thoracoscopic procedure for atrial fibrillation. Society of Thoracic Surgeons, 45th Annual Meeting, Atricare Booth Presentation, San Francisco, Calif., January 26, 2009.

Sirak J. A novel verification technique in a totally thoracoscopic procedure for atrial fibrillation. Methodist Hospital, Re-Evolution Summit, Houston, Texas, March 6, 2009.

Sirak J, Sun B, Jones D, Sai-Sudhakar CB, Crestanello J, Firstenberg M. Toward a definitive, totally thoracoscopic procedure for atrial fibrillation. American Heart Association, Scientific Sessions, New Orleans, La., November 8–12, 2008.

Steinbaugh GE, Lee DS, Pfeiffer DR, Zweier JL, Crestanello JA. Ischemic preconditioning protects mitochondrial respiratory function in complex I and complex II. American College of Cardiology, 58th Annual Scientific Session, Orlando, Fla., March 29, 2009.

Stoica SC, Phillips AB, Egan M, Rodeman R, Chisolm J, Hill S, Cheatham JP, Galantowicz M. The retrograde aortic arch in the hybrid approach to hypoplastic left heart syndrome. Society of Thoracic Surgeons, 45th Annual Meeting, San Francisco, Calif., January 26–28, 2009.

Sun BC. A decision matrix for adult mechanical circulatory support. American Association for Thoracic Surgery, Boston, Mass., May 8–11, 2009.

Sun BC (Moderator). Realizing the potential: advanced heart failure therapy in the new era: device selector. Thoratec User Meeting, Orlando, Fla., March 6–8, 2009.

Sun BC. Surgery for end-stage heart disease: where are we going? Penn State University College of Medicine, the Milton S. Hershey Medical Center, 13th Annual William S. Pierce Lecture, Hershey, Pa., May 4, 2009.

Tam M, Zikri N, Ross P, Schumer E, Moffatt-Bruce SD. The role of regulatory T cells in photodynamic therapy of lung cancer. American Thoracic Society, Annual Meeting, San Diego, Calif., May 19, 2009.

Vesco PA, Crestanello JA, Firstenberg MS, Sood N. Pulmonary embolectomy for acute massive pulmonary embolus. Chest 2008 Conference, Philadelphia, Pa., October 25–30, 2008.

Williams T, Satiani B, Thomas A, Ellison EC. The estimated cost of training the future surgical work force. American Surgical Association, Indian Wells, Calif., April 24, 2009.

Williams T, Sun B, Ross P Jr. A formidable task: population analysis predicts a deficit of 2,000 cardiothoracic surgeons by 2030. American Association for Thoracic Surgery, 89th Annual Meeting, Boston, Mass., May 9–13, 2009.

Miscellaneous Presentations

Crestanello JA. Cryomaze procedure ATS wet lab. The Ohio State University Medical Center, Cardiothoracic Surgery Fellows Conference, Columbus, Ohio, March 5, 2009.

Crestanello JA. Hypertrophic obstructive cardiomyopathy. The Ohio State University Medical Center, Cardiothoracic Surgery Fellows Conference, Columbus, Ohio, July 17, 2008.

Crestanello JA. Ischemic mitral regurgitation. The Ohio State University Medical Center, Cardiothoracic Surgery Fellows Conference, Columbus, Ohio, September 11, 2008.

Crestanello JA. Ischemic preconditioning and mitochondria ultrastructure and function. The Ohio State University Medical Center, Davis Heart and Lung Research Institute Research in Progress, Columbus, Ohio, February 27, 2009.

Crestanello JA. Mitral valve repair and heart failure. The Ohio State University Medical Center, Seventh Annual Heart Failure Update, Columbus, Ohio, November 21, 2008.

Crestanello JA (Course Co-director). Prosthetic aortic stenosis. The Ohio State University Medical Center, Imagine 2008: Cardiovascular Imaging for the Practitioner, Columbus, Ohio, October 24–25, 2008.

Crestanello JA (Course Director). Robotic mitral valve surgery. The Ohio State University Medical Center, Columbus, Ohio, August 27–28, 2008.

Crestanello JA. Root enlargement procedures. The Ohio State University Medical Center, Cardiothoracic Surgery Fellows Conference, Columbus, Ohio, January 21, 2009.

DeLiberato S, Parthasarathy S, Sai-Sudhakar CB, Phillips A, Sun B, Kwiatkowski P. Inflammatory response following induction of ischemic heart failure in sheep. The Ohio State University Medical Center, Research Day, Columbus, Ohio, April 2, 2009.

DeLiberato S, Sai-Sudhakar CB, Sun B, Phillips A, Parthasarathy S, Kwiatkowski P. Cellular infiltration of ischemic tissue during development of heart failure in large animal model. The Ohio State University, Denman Undergraduate Research Forum, Columbus, Ohio, May 13, 2009.

Firstenberg MS. Catastrophic complication with mechanical support. The Ohio State University Medical Center, Seventh Annual Heart Failure Update, Columbus, Ohio, November 21, 2008.

Haubert L, Jones K, Moffatt-Bruce SD. Surgical clinical correlates in anatomy: implementation of a first-year medical student program. The Ohio State University Medical Center, Department of Surgery Grand Rounds, Columbus, Ohio, May 28, 2009.

Haubert L, Jones K, Moffatt-Bruce SD. Surgical clinical correlates in anatomy: implementation of a first-year medical student program. The Ohio State University Medical Center, Department of Surgery Research Day, Columbus, Ohio, May 22, 2009.

Kwiatkowski P. Animal models of heart failure. The Ohio State University Medical Center, Weekly Scientific Conference, Stem Cell Therapy Group, Columbus, Ohio, May 14, 2009.

Kwiatkowski P. Novel large-animal model of heart failure. The Ohio State University Medical Center, Research in Progress, Columbus, Ohio, June 26, 2009.

Kwiatkowski P. A novel model for pathology and treatment of congestive heart failure. The Ohio State University Medical Center, Trends: Tradition and Progress, Columbus, Ohio, June 6–7, 2009.

Lee DS, Steinbaugh GE, Pfeiffer DR, Zweier JL, Crestanello JA. Ischemic preconditioning selectively protects subsarcolemmal mitochondrial respiration against ischemic injury. The Ohio State University Medical Center, Third Annual Dorothy M. Davis Heart and Lung Research Institute Research Retreat, Columbus, Ohio, October 28, 2008.

Lee D, Steinbaugh G, Zweier JL, Crestanello JA. Short cycle ischemic preconditioning induces potent cardioprotection and is more suitable for clinical application than classical ischemic preconditioning. The Ohio State University Medical Center, Third Annual Dorothy M. Davis Heart and Lung Research Institute Research Retreat, Columbus, Ohio, October 28, 2008.

Mehmood SA, Lockhart A, Firstenberg MS, Sai-Sudhakar C, Sirak J, Louis L, Vesco P, Sun B, Crestanello JA. Mitral annuloplasty with the GeoForm ring for ischemic cardiomyopathy: one-year results. The Ohio State University Medical Center, Eighth Annual Research Day, Columbus, Ohio, April 2, 2009.

Moffatt-Bruce SD. Comparative mutational profiling in lung cancer: the standard of care? Scioto County Medical Society, Southern Ohio Medical Center, Portsmouth, Ohio, October 17, 2008.

Moffatt-Bruce SD. The immunobiology of photodynamic therapy: potential for therapeutic intervention in lung cancer. The Ohio state university Comprehensive Cancer Center, Annual Scientific Meeting, Columbus, Ohio, February 20, 2009.

Moffatt-Bruce SD. Lung transplantation: update. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Nursing Department, Columbus, Ohio, September 29, 2008.

Moffatt-Bruce SD, Ross P. Photodynamic therapy: clinical update and current research. The Ohio State University Medical Center, Surgery Grand Rounds, Columbus, Ohio, January 22, 2009.

Parthasarathy, S. Cell biology seminar. The Cleveland Clinic, Cleveland, Ohio, May 8, 2009.

Parthasarathy S. Coronary artery disease and heart failure. The Ohio State University Medical Center, Heart Failure, Columbus, Ohio, November 21, 2008.

Ross P Jr. Managing the thoracic malignancy patient: diagnosis, treatment, and postop. Miami Valley Health Information Management Association, Good Samaritan North Health Center, Dayton, Ohio, April 11, 2009.

Ross P Jr. Non-small cell lung cancer. Springfield Community Hospital, Grand Rounds, Springfield, Ohio, April 29, 2009.

Ross P Jr. Update on lung cancer treatments. Upper Valley Medical Center Cancer Conference, Troy, Ohio, February 9, 2009.

Sai-Sudhakar CB. Current and future VAD technologies: chronic and acute treatments. The Ohio State University Medical Center, Trends: Tradition and Progress, Columbus, Ohio, June 7, 2009.

Sai-Sudhakar CB. Progress in surgery for aortic stenosis. The Ohio State University Medical Center, Imagine 2008: Cardiovascular Imaging for the Practitioner, Columbus, Ohio, October 24, 2008.

Sirak J. Current surgical therapy of atrial fibrillation. Genesis Hospital, Zanesville, Ohio, January 6, 2009.

Sirak J. New surgical perspectives on atrial fibrillation. Akron General Hospital, 20th Annual Cardiovascular Invitational, Akron, Ohio, July 30, 2008.

Sirak J. A novel verification technique in a totally thoracoscopic procedure for atrial fibrillation. Mary Rutan Hospital, Bellefontaine, Ohio, March 2, 2009.

Sirak J. Surgery for atrial fibrillation: when is this appropriate? The Ohio State University Medical Center, Imagine 2008: Cardiovascular Imaging for the Practitioner, Columbus, Ohio, October 24, 2008.

Steinbaugh GE, Lee DS, Pfeiffer DR, Zweier JL, Crestanello JA. Ischemic preconditioning protects mitochondrial respiratory function in complex I and complex II. The Ohio State University Medical Center, Third Annual Dorothy M. Davis Heart and Lung Research Institute, Research Retreat, Columbus, Ohio, October 28, 2008.

Steinbaugh G, Lee DS, Zweier J, Crestanello JA. Ischemic preconditioning reduces reactive oxygen species produced in rat heart mitochondria. The Ohio State University Medical Center, Eighth Annual Research Day, Columbus, Ohio, April 2, 2009.

Sun BC. 21st century treatment of heart failure: synchronizing surgical and medical therapies for better outcomes: complex cases in heart failure. The Cleveland Clinic, Cleveland, Ohio, October 16–18, 2008.

Sun BS. Cardiac transplantation and LVAD's. The Ohio State University Medical Center, Current Concepts in Electrophysiology for Advanced Practice Nurses and Allied Health Professionals, Columbus, Ohio, September 12, 2008.

Sun BC. Heart transplant center volume: does size matter for quality outcomes? The Cleveland Clinic, Treatment of Cardiovascular Disease: Legacy and Innovation, Cleveland, Ohio, June 3, 2009.

Sun BC. LVAD's. Ohio Chapter of the American College of Cardiology, 18th Annual Meeting, Columbus, Ohio, October 18, 2008.

Vaida A. Heart murmurs and chest pain. The Ohio State University Medical Center, Med III Lecture, Columbus, Ohio, July 28, 2008.

Vaida A. Heart murmurs and chest pain. The Ohio State University Medical Center, Med III Lecture, Columbus, Ohio, September 22, 2008.

Vaida A. Hyperhydrosis and sympathectomy. The Ohio State University Medical Center, Fellows Education Meeting, Columbus, Ohio, September 18, 2008.

Vaida A. Trauma. Blunt chest trauma. Penetrating chest trauma. Flail chest pulmonary contusion injuries. The Ohio State University Medical Center, Fellows Education Meeting, Columbus, Ohio, July 24, 2008.

Vesco PA. Robotic cardiothoracic surgery: the future awaits. Kettering Medical Center, Cardiology Grand Rounds, Dayton, Ohio, December 9, 2008.

Vesco PA. Update on minimally invasive and robotic cardiac surgery. Southeastern Ohio Regional Medical Center, Internal Medicine Grand Rounds, Cambridge, Ohio, October 15, 2008.

Critical Care, Trauma, and Burn



Steven M. Steinberg, M.D.

Chief, Division of Critical Care, Trauma, and Burn

The Division of Critical Care, Trauma, and Burn was formed in March 2006, with the charge of enhancing the Department of Surgery's programs in surgical critical care, trauma, and burns and developing an acute care surgery program. This year brought an increase in the number of our faculty and the continued growth of clinical volume and scholarly activity.

This year, the division appointed two new faculty members, Dr. Stanislaw Stawicki and Dr. Melissa Whitmill. Dr. Stawicki received his medical degree at the University of Louisville, in Louisville, Ky., and completed his surgery residency at St. Luke's Hospital and Health Network, in Bethlehem, Pa. He joined us following a trauma and surgical critical care fellowship at the University of Pennsylvania, in Philadelphia, under the tutelage of Dr. C. William Schwab. Dr. Stawicki's clinical research interests are trauma, critical care, and patient safety. Dr. Whitmill received her medical degree and completed her general surgery residency at Wright State University, in Dayton, Ohio. She joined our division after a surgical critical care fellowship at Henry Ford Hospital, in Detroit, Mich., with Dr. H. Mathilda Horst. Dr. Whitmill's interests are trauma, critical care, and education. Additionally, we have succeeded in recruiting an associate burn director, Dr. Brian Porshinsky, who will join our faculty in July 2009, after he completes his surgical critical care fellowship at The Ohio State University Medical Center.

As a division, there were a number of notable accomplishments this year. The Burn Center, under the direction of Dr. Sidney Miller, was verified by the American College of Surgeons Committee on Trauma and the American Burn Association as a verified adult burn center. This gives Ohio State's Medical Center the only verified adult burn center in Central Ohio. Dr. David Lindsey received a Department of Surgery Teaching Award, as voted by the Surgery house staff. Dr. Whitmill received the Department of Emergency Medicine's Outstanding Teaching Award, as chosen by their residents. Heather Ratliff, R.N., C.N.P., one of our nurse practitioners, received the Department of Surgery's Nurse of the Year Award, in recognition of her fine efforts on behalf of our patients and her superb support of the resi-

dents and our programs. In addition to other duties, Dr. Steven Steinberg assumed the position of associate chief medical officer for patient safety for The Ohio State University Health System.

The surgical critical care fellowship received approval from the Accreditation Council for Graduate Medical Education to expand the program complement to four residents, and each position was filled this year. Of the fellows who completed their training, Dr. Amy Jarvis and Dr. Cecilia Wang entered practice at St. Francis Hospital, in Tulsa, Okla., as part of a new acute care surgery program. Dr. Brian Porshinsky will join our faculty as associate burn director. Dr. Andrew Crockett will return to the general surgery program as a PGY-4 resident, and has expressed interest in pursuing burn surgery as a career. Dr. Mark Prosciak also completed the fellowship this year.

The Critical Care Signature Program, of which our division is a key member, continues to progress. A new system-wide critical care quality committee, with Dr. Steinberg as co-chair, meets monthly. A community advisory board has been established and meets regularly. The two groups have provided the signature program leadership with excellent advice and direction.

The Trauma Program, under the leadership of Dr. Steinberg, continues to show an increase in activity, with more than 2,200 trauma admissions in 2008, reflecting a three percent increase over the previous year. Over the past five years, the trauma program has grown 26 percent. Of the patients admitted, 23 percent had a moderate to severe Injury Severity Score, and 45 percent required at least one operative procedure. Of patients who arrived by EMS, 41 percent transferred from outside hospitals, and 59 percent of the patients came directly from the scene of injury. The division has assumed management of approximately 60 percent of all emergency general surgery clinical volume. Members of the division performed 2,994 emergency general surgery procedures. We also continued to deliver the general surgery care for the prison population. Patient satisfaction for the division is 84 percent.

The division developed a number of new patient care guidelines and protocols, including a massive transfusion protocol and a cervical spine clearance protocol.

Dr. Charles H. Cook continues his research in cytomegalovirus (CMV) infections and bacterial sepsis during critical illness. His laboratory is focusing on how cytomegalovirus reactivation causes lung injury in immunocompetent patients. In addition to his CMV work in critical care, Dr. Cook completed a second R01 grant studying the immunobiology of murine allograft acceptance. The focus of the grant was to determine which events lead to allograft acceptance and the role CMV may play in disrupting this acceptance. In addition to his research pursuits, Dr. Cook remains active in the care of injured and critically ill patients, and he continues to serve as medical director of the Surgical Intensive Care Unit.

Dr. David Lindsey completed his second year in the division this year. As noted above, he received a Department of Surgery Teaching Award, as voted by the surgical house staff, for excellence in teaching and dedication to surgical education. Dr. Lindsey is currently organizing the cardiovascular mortality reduction project at the Medical Center. He recently became an Advanced Trauma Life Support trauma course director and was appointed as a member of the Ohio Committee on Trauma of the American College of Surgeons. Dr. Lindsey is active in the care of injured and critically ill patients.

Dr. Sidney Miller, director of the Burn Center at Ohio State, is an authority on burn care and serves in many local and national leadership roles. He is a member of the board of trustees of the American Burn Association, which he currently serves as its president-elect. Dr. Miller sits on the editorial boards of the *Journal of Burns* and the *Journal of Burn Care and Rehabilitation*. He serves on the Trauma Committee of the Ohio Department of Public Safety Emergency Medical Services Board and on the Interagency Response Group of the Ohio Department of Homeland Security. Dr. Miller was a member of the Committee on Trauma of the American College of Surgeons for 18 years, as vice chair and chair of the Ohio State Committee on Trauma and as its region chief for Region V. He is a member of the external review panel for the Department of Defense Combat Casualty Care Program. The program is developing new and improved methods of evaluating and treating injured military personnel, which will be translatable to the civilian community. He is a past governor of the American College of Surgeons and a past president of the Ohio Chapter of the American College of Surgeons. The burn program at Ohio State was established under the direction of Dr. Miller. In addition to providing patient care, the program established an Annual Burn Survivor Family Camp and implemented the Survivors Offering Assistance in Recovery (SOAR) Program, which provides peer support to patients in the Burn Center at Ohio State. As noted above, the Burn Center was verified by the American College of Surgeons Committee on Trauma and the American Burn Association as a verified adult burn center.

Dr. Stanislaw Stawicki joined the division in July 2008. He was the principal organizer of the First Annual Scientific and Board Meeting of the OPUS 12 Foundation, Inc., of Bethlehem, Pa., February 3–5, 2009. He is participating on several Medical Center committees: the Trauma Bay Reorganization Task Force, the Interdisciplinary Sentinel Event Committee-Wrong Site Surgery Task Force, and the Trauma Radiology Improvement Task Force. He has published 16 scientific manuscripts and is performing three IRB-approved studies. His research this year resulted in six podium and poster presentations at regional and national meetings.

Dr. Steven Steinberg is chief of the Division of Critical Care, Trauma, and Burn and a member of the board and the clinical trauma committee of Central Ohio Trauma Systems. At the Medical Center, Dr. Steinberg has been appointed associate chief medical officer for patient safety. He serves as chair of the Clinical Patient Safety Committee and the University Hospital Operating Room Committee, and is a member of the Physicians Executive Council, the Health System Operating Room Coordinating Committee, the Leadership Council for Clinical Quality and Safety, and the Medical Staff Officers Group. He is an editorial board member of *Selected Readings in General Surgery*. Dr. Steinberg continues to be active in surgical education and critical care.

Dr. Yalaunda Thomas completed her third year in the division this year. In addition to delivering excellent clinical care, Dr. Thomas has participated in a number of national organizations, including the Eastern Association for the Surgery of Trauma, for which she sits on the Mild Traumatic Brain Injury Management Guidelines Committee, and the Society of Black Academic Surgeons. She participated in the Fourth Annual Society of Black Academic Surgeons Leadership Institute in April 2009. She was appointed as an associate member of the American College of Surgeons Regional Committee on Trauma in June 2009.

Dr. Melissa Whitmill joined the division in August 2008. She was the faculty recipient of the 2009 Outstanding Teaching Contribution Award from the Department of Emergency Medicine, for teaching and mentoring the emergency medicine residents. She has taken on many assignments to help reorganize the division's educational offerings.

Rebecca Coffey, R.N., C.N.P., burn nurse practitioner, serves on the Nursing Research Executive Council (NREC), and is also co-leader of the wound care practice group, a subgroup of the NREC. This year, she provided educational outreach to emergency medical services, referring hospitals, and emergency departments.

Heather Ratliff, R.N., M.S., C.N.P., nurse practitioner, is a member of the recently established Nurse Practitioner Council. She has been accepted onto the Committee on Quality and Safety of the hospital-wide Shared Governance Council. She was awarded the Surgical Nurse of the Year Award by the chief residents in general surgery, for exemplary dedication to the care of surgical patients.

Susan Yeager, M.S., R.N., C.C.R.N., A.C.N.P., nurse practitioner, was selected to become a nurse member of the Eastern Association for the Surgery of Trauma. She represented Ohio State's Medical Center at the first annual, national Nurse Practitioner Forum, in Rochester, N.Y. She was chosen to participate in the Acute Care Nurse Practitioner Practice Analysis Task Force and to review Circle of Excellence Award abstracts for the American Association of Critical Care Nurses. For the Neurocritical Care Society, she was selected as the first nurse committee member for the Annual Meeting Committee and was chosen to moderate the session "Neurocritical Care in the Emergency Department." She also was asked to be an abstract reviewer for the society's annual meeting. She chaired the society's recently-formed nursing committee and presented at the nursing forum. Within the state of Ohio, she continues her involvement with the American Academy of Nurse Practitioners by remaining an active member of the Schedule II Narcotics Task Force. She also was selected to be a part of the Advanced Practice Nurse Committee for the hospital-wide Shared Governance Council.

Faculty

Steven M. Steinberg, M.D.

Professor of Surgery; Vice Chairman for Clinical Affairs, Department of Surgery; Chief, Division of Critical Care, Trauma, and Burn

B.Sc.: The Ohio State University, Columbus, Ohio, 1975

M.D.: The Ohio State University, Columbus, Ohio, 1978

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1999

Specialty Interests: General surgery

Research Interests: Alterations in splanchnic microcirculation in shock; hemodynamic assessment in critical illness; adequacy of hemodynamic resuscitation in shock; sepsis and organ failure; trauma



Steinberg

Charles H. Cook, M.D.

Associate Professor of Surgery; Medical Director, Surgical Critical Care

B.S.: Pennsylvania State University, University Park, Pa., 1987

M.D.: The Ohio State University, Columbus, Ohio, 1991

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1997

Specialty Interests: Critical care, laparoscopy

Research Interests: Surgical outcomes, surgical infectious disease



Cook

David E. Lindsey, M.D.

Assistant Professor of Clinical Surgery

B.S.: The Ohio State University, Columbus, Ohio, 1972

M.D.: The Ohio State University, Columbus, Ohio, 1976

Specialty Training: Stanford University Hospital, Stanford, Calif.; University of California-Davis, Sacramento, Calif.

Appointment: 2007

Specialty Interests: Critical care, cardiovascular critical care, trauma



Lindsey

Sidney F. Miller, M.D.

Professor of Surgery; Director, Burn Center, The Ohio State University Medical Center

B.A.: Indiana University, Bloomington, Ind., 1965

M.D.: Indiana University School of Medicine, Indianapolis, Ind., 1968

Specialty Training: Miami Valley Hospital, Dayton, Ohio

Appointment: 2006

Specialty Interests: Burns

Research Interests: Wound healing



Miller

Stanislaw P. Stawicki, M.D.

Assistant Professor of Surgery

B.A.: University of Louisville, Louisville, Ky., 1997

M.D.: University of Louisville, Louisville, Ky., 2001

Specialty Training: Residency in general surgery, St. Luke's Hospital and Health Network, Temple University Clinical Campus, Bethlehem, Pa.; fellowship in traumatology and surgical critical care, University of Pennsylvania, Philadelphia, Pa.

Appointment: 2008

Specialty Interests: Trauma, surgical critical care, emergency surgery

Research Interests: Geriatric trauma, role of comorbidities in trauma



Stawicki

Yalaunda M. Thomas, M.D.

Assistant Professor of Surgery

B.S.: Wake Forest University, Winston-Salem, N.C., 1995

M.D.: University of North Carolina, Chapel Hill, N.C., 2000

Specialty Training: University of Illinois at Chicago, Chicago, Ill.; University of Maryland Medical System, Baltimore, Md.

Appointment: 2006

Specialty Interests: Critical care, trauma, general surgery

Research Interests: Trauma, critical care



Thomas

Melissa L. Whitmill, M.D.

Assistant Professor of Clinical Surgery

B.S.: Columbia Union College, Takoma Park, Md., 1995

M.D.: Wright State University, Dayton, Ohio, 2001

Specialty Training: Residency in general surgery, Wright State University, Dayton, Ohio; fellowship in surgical critical care, Henry Ford Hospital, Detroit, Mich.

Appointment: 2008

Specialty Interests: Trauma, surgical critical care, emergency surgery



Whitmill

Resident Staff

Andrew O. Crockett, M.D.

Surgical Critical Care Fellow

B.S.: University of Utah, Salt Lake City, Utah, 2001

M.D.: University of Utah, Salt Lake City, Utah, 2005

Amy M. Jarvis, M.D.

Surgical Critical Care Fellow

B.A.: Miami University, Oxford, Ohio, 1997

M.D.: The Ohio State University, Columbus, Ohio, 2001

Brian S. Porshinsky, M.D.

Surgical Critical Care Fellow

B.A.: The Ohio State University, Columbus, Ohio, 1991

M.D.: Medical College of Ohio, Toledo, Ohio, 1999

Mark P. Prosciak, M.D.

Surgical Critical Care Fellow

B.A.: University of Calgary, Calgary, Alberta, Canada, 1990

M.A.: Gonzaga University, Spokane, Wash., 1995

M.D.: St. George's University, St. George's, Grenada, 2001

Cecilia F. Wang, M.D., M.S.

Surgical Critical Care Fellow

B.S.: University of Maryland, College Park, Md., 1993

M.D.: Saba University, Saba, Netherlands Antilles, 2002

Mission

The mission of the Division of Critical Care, Trauma, and Burn is to improve people's lives through innovations in research, education, and patient care in the areas of surgical critical care, trauma, burns, and emergency surgery.

Research Programs

- Cytomegalovirus infections and bacterial sepsis.
- Missed billing opportunities in the surgical intensive care unit.
- Splenic and pancreaticoduodenal trauma.
- Screening for lower extremity deep venous thrombosis in trauma patients.
- Management of new onset atrial fibrillation in non-cardiac surgery ICU patients.

- Glycemic control in ICU patients.
- A review of hunting accidents.
- A survey of the use of digital rectal examination in trauma evaluation.
- Evaluation of blind bronchoalveolar lavage in the diagnosis of ventilator-associated pneumonia.
- Assessment of renal function by equation.
- Impact of RAS scoring on use of sedation in the SICU.
- A multicenter study of the efficacy of SOAR: a peer-support program for burn survivors and their support persons (University of Kentucky).
- Use of fresh frozen plasma and the West Penn formula versus crystalloid and the Parkland formula for resuscitation of major burns: a retrospective review.
- Increasing nurses' knowledge and ability to teach about burn prevention: a multicenter study (University of Louisville).
- Comparison of burn severity and patient outcomes to the subsets of mesenchymal stem cells identified in the blood of burn victims.
- Evaluation of early glycemic control in critically ill burn patients.
- Electrical burns and the development of post-traumatic stress disorder and associated psychological sequelae: a retrospective study.
- Toxic epidermal necrolysis and SCORTEN: an Ohio State University Medical Center experience.
- Percutaneous peritoneal decompression and abdominal compartment syndrome: a prospective, randomized multi-institutional study (University of Iowa).
- Using computer-based learning as a method of establishing competency in the care of high-risk, low-volume nursing care.
- Recognition and treatment of alcohol withdrawal syndrome in burn patients: impact on nursing care and patient outcomes using a new clinical guideline.

Accomplishments in Research

- Publication of 34 scholarly articles and abstracts by division faculty and staff.
- Presentation of 22 presentations at international and national meetings by division faculty and staff.
- The division broadened its clinical research meetings to include pharmacy, dietary, and nursing.

Active Research Grants

Cook CH, Nadasdy T. The immunobiology of murine allograft acceptance. National Institute of Allergy and Infectious Diseases, December 1, 2002 – November 30, 2008, \$1,452,781.

Cook CH, Sedmak DD. Bacterial sepsis and reactivation of latent cytomegalovirus. National Institute of General Medical Sciences, May 8, 2003 – April 30, 2009, \$1,438,254.

Clinical Programs

- Surgical critical care, trauma, burn, and emergency surgery services.

Accomplishments in Clinical Care

- Assumed the care of the majority of emergency general surgery patients.
- Initiated daily multidisciplinary rounds.
- Developed a number of new patient care guidelines and protocols, including a massive transfusion protocol and a cervical spine clearance protocol.
- Instituted a General Surgery Prison Telemedicine Clinic in May 2009. The clinic reduces prison transportation and personnel costs and provides improved continuity of care for preoperative and postoperative prisoners.

Clinical Statistics

OR Procedures	3,437
Outpatient Visits	1,901
Admissions	14,488
Patient Days	10,851
Average Length of Stay (Days)	7.36

Educational Programs

- Fully-accredited fellowship in surgical critical care.

Accomplishments in Education

- Completion of the surgical critical care fellowship by Dr. Andrew Crockett, Dr. Amy Jarvis, Dr. Brian Porshinsky, and Dr. Cecilia Wang. Dr. Mark Prosciak completed the surgical critical care fellowship October 1, 2007 – September 30, 2008.
- Dr. David Lindsey received a Department of Surgery Teaching Award, as voted by the Surgery residents.
- Dr. Melissa Whitmill received the Department of Emergency Medicine's Outstanding Teaching Award, as voted by the department's residents.

Community Outreach Programs

- Trauma injury prevention.
- Burn outreach.
- Trauma outreach.
- Local Heroes Day.

Accomplishments in Community Outreach

- The Second Annual OSUMC Burn Center Family Burn Camp, under the direction of Dr. Sidney Miller, was held August 15–17, 2008, at Camp Joy, in Clarksville, Ohio. The camp brings together former burn patients and their families for a weekend of camping and team building.
- The OSUMC burn team, under the direction of Dr. Sidney Miller, participated in the first Emergency Day program at COSI (Center of Science and Industry) on October 18, 2008. The program was designed to educate the general public about disaster preparedness, common childhood and household emergencies, and injury prevention and management. The burn team provided hands-on learning stations on burn depth and injury severity, airway breathing and circulation, burn wound care, rehabilitation, burn prevention, and a simulation of a burn operating room.
- Many members of the division gave talks on trauma and burn topics to EMS providers, staff at outside hospitals, and other care providers throughout Ohio.

Publications

Braslow BM, Stawicki SP, Dickinson ET. Male with torso injury. *Ann Emerg Med* 2009; 53(1):159–167.

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Abstracts

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Visiting Professorships

Cook CH. CMV in critical care. University of Miami, Department of Surgery Grand Rounds, Miami, Fla., November 13, 2008.

Steinberg SM. Hemodynamic management of critically ill patients. University of Wisconsin, Department of Surgery, Madison, Wis., October 3, 2008.

International Presentations

Blome-Eberwein S, Johnson M, Fudem G, Caruso D, Jordan MH, Milner S, Miller SF, Tredget EE, Sittig K, Smith L. Hydrofiber dressing with silver in the management of split-thickness donor sites. International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

Izu B, Miller SF, Saxe J. Analysis of resuscitation with fresh frozen plasma: a retrospective review of burn resuscitation. International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

Miller SF, Brandeberry A, Coffey R. C-reactive protein as an early indicator of septicemia in acute burn patients (poster presentation). International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

Miller SF, Chaudhry Z, Coffey R, Crockett A, Sammet S, Yuh W. Assessing the safety of silver-based wound dressings in a magnetic resonance environment. International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

Miller SF, Francis S, Coffey R, Pace R. Esophageal stricture following toxic epidermal necrolysis: a case report. International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

Miller SF, Shapiro M, Bailey JK, Waltman M. A prospective trial of a new oat glucan product (Glucan II) for elective donor sites. International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

Thomas A, Miller SF, Coffey R, Johnson A, Falika T, Casavant C. Comparison of the Lund-Browder diagram with the SAGE IIc burn computer diagram (poster presentation). International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

White L, Miller SF, Beers E, Coffey R. Nutritional goal delivery assessment in acute burn patients (poster presentation). International Society for Burn Injuries, 14th Congress, Montreal, Canada, September 7–11, 2008.

Yeager S. Introduction to spine care for non-physician providers: perioperative care and floor emergencies. North American Spine Society, Toronto, Canada, October 13–15, 2008.

National Presentations

Cook CH. Cytomegalovirus and tolerance. Transplant Research Conference, University of Miami, Miami, Fla., November 13, 2008.

Cook CH. Occult cytomegalovirus infection may influence transplant tolerance models. Society of University Surgeons, Fourth Annual Academic Surgical Congress, Fort Myers, Fla., February 4, 2009.

Crockett A, Beery P, Thomas YM, Lindsey DE, Stawicki SP, Whitmill ML, Steinberg SM, Jarvis AM, Wang CF, Cook CH. Shoots and ladders: a review of hunting-related injuries. Western Trauma Association Meeting, Annual Meeting, Crested Butte, Colo., February 22–25, 2009.

Prosciak MP, Stawicki SP, Davido HT, Thomas YM, Lindsey DE, Whitmill ML, Steinberg SM, Gerlach AT, Cook CH. Atrial fibrillation after esophagectomy: a marker of increased morbidity and mortality (poster presentation). American Thoracic Society, International Conference, San Diego, Calif., May 15–20, 2009.

Stawicki SP. OPUS 12 foundation: a research powerhouse. First Annual OPUS 12 Scientific and Board Meeting, Presidential Address, Bethlehem, Pa., February 3–5, 2009.

Stawicki SP, Doraiswamy VA, Kirkpatrick JN, Hayden GE, Gracias VH, Dean AJ. Echocardiographic E, E', A, and A' wave determinations: exploring measurement biases between non-cardiologist intensivists and cardiologists (poster presentation). American Thoracic Society, International Conference, San Diego, Calif., May 15–20, 2009.

Stawicki SP, Panebianco NL, Kirkpatrick J, Gracias VH, Hayden G, Dean AJ. Intensivist use of hand-carried ultrasound to measure E/E' and IVC collapsibility in estimating volume status: correlations with pulmonary artery and central venous pressures. Southern Medical Association, 100th Annual Scientific Assembly, Nashville, Tenn., August 7–9, 2008.

Stawicki SP, Seamon MJ, Carvalho CM, Bhoot N, Sharma R, Schrag SP, Steinberg SM. Adrenal gland injury secondary to blunt traumatic mechanisms: a marker of injury severity (poster and podium presentation). Southern Medical Association, 100th Annual Scientific Assembly, Nashville, Tenn., August 7–9, 2008.

Wang CF, Stawicki SP. Risk factors for retained surgical foreign bodies: a meta-analysis. Central Surgical Association, Annual Meeting, Sarasota, Fla., March 5–7, 2009.

Whitmill ML. Serotonin reuptake inhibition by diphenhydramine and concomitant linezolid use resulting in serotonin syndrome, critical care conundrums. American College of Chest Physicians, CHEST 2009, Philadelphia, Pa., October 25–28, 2008.

Yeager S (Moderator) Neurocritical care in the emergency department. Neurocritical Care Society, Miami, Fla., October 22–24, 2008.

Yeager S (Moderator). Neurocritical care nursing forum. Neurocritical Care Society, Miami, Fla., October 22–24, 2008.

Yeager S. Nuts and bolts of ischemic and hemorrhagic brain injury. American Academy of Nurse Practitioners, Nashville, Tenn., June 17, 2009.

Miscellaneous Presentations

Betz S. The shock of trauma. Shock Trauma at the 'Shoe, Physicians, Nurses, and EMS Providers, Columbus, Ohio, September 17, 2008.

Betz S. Surviving the fear factor of trauma. EMS Outreach Series, Emergency Nurses and EMS Providers, Lancaster, Ohio, February 18, 2009.

Betz S. Trauma 101. Capital University Senior Nursing Students, Columbus, Ohio, March 4, 2009.

Betz S. Trauma 101. Mount Carmel Senior Nursing Students, Columbus, Ohio, April 29, 2009.

Betz S. Trauma case review: primary and secondary assessment. The Ohio State University Medical Center, Quest for Excellence, Nurses, Columbus, Ohio, September 22, 2008.

Coffey R. Burn in-service. Alliance of Ohio Trauma Registrars, Columbus, Ohio, October 3, 2008.

Coffey R. Burn wound care. The Ohio State University Medical Center, Dodd Hall Staff, Columbus, Ohio, June 2, 4, 11, 2009.

Coffey R. EMS refresher course. Union County EMT, Delaware, Ohio, September 25, 2008.

Coffey R. Emergency care of the burn patient. Upper Arlington Fire Department, Emergency Medical Service, Upper Arlington, Ohio, April 23, 2009.

Coffey R. Initial management of the burn patient. MedCentral Health System Continuing Medical Education, Mansfield, Ohio, July 15, 2008.

Coffey R. Medical refresher course: update on burns. Emergency Medical Service, Delaware, Ohio, January 6, 2009.

Coffey R. Outpatient burn care. Smith Clinic and local health departments, Delaware, Ohio, May 28, 2009.

Coffey R. Overview of the burn patient. The Ohio State University, College of Nursing, NP Nursing Students, Columbus, Ohio, July 29, 2008.

Coffey R. Paramedic education: initial education (four-hour class). Emergency Medical Service, Delaware, Ohio, March 9, 2009.

Coffey R. Paramedic refresher course: burn. Monroe Township Fire Department, Emergency Medical Service, Delaware, Ohio, February 25, 2009.

Coffey R. Paramedic refresher course: update on burns. Berlin Township Fire Department, Emergency Medical Service, Delaware, Ohio, May 4, 2009.

Coffey R, Barnet R, Scheerlee C, Schooley S, Brown R, Casavant C, Miller SF. Sparky says, "Be prepared": campus fire safety. Great Lakes Burn Association Annual Meeting, Akron, Ohio, September 25–26, 2008.

Coffey R, Betz S. Emergent burn care. The Ohio State University Medical Center, Trauma Tactics, ED, ICU, and OR Nursing Staff, Columbus, Ohio, August 13, 2008.

Coffey R, Betz S. Initial care of the burn patient. The Ohio State University Medical Center, Trauma Tactics, Emergency Department, ICU, and OR Nursing Staff, Columbus, Ohio, April 8, 2009.

Coffey R, Betz S. Initial care of the burn patient. The Ohio State University Medical Center, Trauma Tactics, Emergency Department, Nursing Staff, Columbus, Ohio, May 14, 2009.

Coffey R, Betz S. Initial care of the burn patient. The Ohio State University Medical Center, Trauma Tactics, Emergency Department, Nursing Staff, Columbus, Ohio, June 10, 2009.

Coffey R, Betz S, Stewart T. Crash and burn. Emergency Medical Service, Marion, Ohio, May 20, 2009.

Coffey R, Betz S, Stewart T. Crash and burn. Emergency Medical Service, McConnellsville, Ohio, March 16, 2009.

Coffey R, Betz S, Stewart T. Emergency burn care. The Ohio State University Medical Center, Trauma Tactics, ED, ICU, and OR Nursing Staff, Columbus, Ohio, October 8, 2008.

Coffey R, Betz S, Stewart T. Initial care of the burn patient. The Ohio State University Medical Center, Trauma Tactics, ED, ICU, and OR Nursing Staff, Columbus, Ohio, February 11, 2009.

Coffey R, Betz S, Stewart T. Trauma tactics. Grant Medical Center, ED, ICU, and OR Nursing Staff, Columbus, Ohio, December 10, 2008.

Coffey R, Casavant C, Parks J, Harper C. Burn Prevention Week outreach. The Ohio State University, Columbus, Ohio, February 4, 2009.

Coffey R, Dahman J. Burn prevention outreach. Worthington Fire Department, Families and Local Community, Worthington, Ohio, October 5, 2008.

Coffey R, Kulesick J, Casavant C, Betz S, Stewart T, Yeager S. ED skills: burn and trauma. The Ohio State University Medical Center, Emergency Department Nursing Staff, Columbus, Ohio, March 5, 17, 24; April 7, 17, 2009.

Coffey R, Lewis J, Biller J. Burn prevention. Violet Township, Families and Local Community, Columbus, Ohio, October 12, 2008.

Coffey R, Schooley S, Kulisek J, Harper C, Parks J, Lehman J, Duzak J, Thomas S, Dahman J. The Ohio State University Medical Center, Burn Nursing Orientation Class, SICU, 9W Doan Burn Staff, Columbus, Ohio, February 10, 2009.

Cook CH. Current topics in critical care. The Ohio State University Medical Center, Department of Anesthesiology Grand Rounds, Columbus, Ohio, October 9, 2008.

Cook CH. Cytomegalovirus reactivation and allograft acceptance: lessons learned from the lab. The Ohio State University Medical Center, Comprehensive Transplant Center Seminar, Columbus, Ohio, December 17, 2008.

Crockett A, Murphy C. Fire and ice. Ohio Fire Marshal's Office, Emergency Medical Service, Reynoldsburg, Ohio, November 8, 2008.

Eakin J, Lemmon C, Miller SF. Comparison of outcomes for burn patients cared for in trauma centers based on two national registries. Great Lakes Burn Association, Annual Meeting, Akron, Ohio, September 25–26, 2008.

Jarvis AM, Cook CH, Lindsey DE, Reilley T, Steinberg SM, Thomas YM, Whitmill ML, Stawicki SP. Comparison of epidural versus parenteral analgesia for traumatic rib fractures: a meta-analysis (podium presentation). Ohio Committee on Trauma, Annual Meeting, Worthington, Ohio, November 1, 2008.

Kulisek J, Miller SF, Coffey R. ABLIS: course instructor. Nationwide Children's Hospital, Physicians, Nurses, EMT's Columbus, Ohio, September 3, 2008.

Lindsey DE. Blunt and penetrating traumas to the chest. The Ohio State University Medical Center, Current Concepts in Respiratory Care, Columbus, Ohio, April 30, 2009.

Lindsey DE (Invited Moderator). Surgical critical care. The Ohio State University Medical Center, Professor Conferences for PGY4's and PGY5's, Columbus, Ohio, June 11, 2009.

Lindsey DE (Invited Moderator). Trauma and emergency care. The Ohio State University Medical Center, Professor Conferences for PGY4's and PGY5's, Columbus, Ohio, April 16, 2009.

Miller SF. Advanced Burn Life Support course. Nationwide Children's Hospital, Columbus, Ohio, September 4, 2008.

Miller SF. Advanced Burn Life Support course. The Ohio State University Medical Center, Columbus, Ohio, October 30, 2008.

Miller SF. Advanced Trauma Life Support course. Central Ohio Trauma System, Columbus, Ohio, July 17–18, 2008.

Miller SF. Advanced Trauma Life Support course. Central Ohio Trauma System, Columbus, Ohio, February 27–28, 2009.

Miller SF. Anatomy dissections for medical students. The Ohio State University Medical Center, Columbus, Ohio, August 25, 2008.

Miller SF. Burns. The Ohio State University Medical Center, Basic Science Lecture for PGY1–PGY3, Columbus, Ohio, January 8, 2009.

Miller SF. Burns. The Ohio State University Medical Center, MSIII Study Session, Columbus, Ohio, August 11, 2008.

Miller SF. Burns. The Ohio State University Medical Center, MSIII Study Session, Columbus, Ohio, April 6, 2009.

Miller SF. Burns in the workplace: from coffee to tar to electrocution. Ohio Safety Congress and Expo, Columbus, Ohio, April 1, 2009.

Miller SF. Care of the burn patient. The Ohio State University Medical Center, Senior Elective Course in Therapeutics, Columbus, Ohio, March 16, 2009.

Miller SF. Electrical, chemical, and atypical burns. Union County Emergency Services Association and The Ohio State University Center for Emergency Medical Services, Annual Emergency Medical Services Conference, Marysville, Ohio, November 15, 2008.

Miller SF. Something about silver. The Ohio State University Medical Center, Burn Center Quarterly Burn Education Dinner, Columbus, Ohio, December 10, 2008.

Miller SF. Suturing. The Ohio State University Medical Center, Clinical Skills Immersion Lecture, Columbus, Ohio, August 21, 2008.

Miller SF. Suturing. The Ohio State University Medical Center, Clinical Skills Immersion Lecture, Columbus, Ohio, February 19, 2009.

Miller SF, Coffey R, Schooley S, Popp S, Hanna S, Kent M. Advanced Burn Life Support course. The Ohio State University Medical Center, Columbus, Ohio, June 24, 2009.

Stawicki SP (Invited Podium Presenter). What's new in intensivist ultrasonography? The Ohio State University Medical Center; Pulmonary, Allergy, Critical Care and Sleep Medicine, Third Annual Research Day, Columbus, Ohio, September 19, 2008.

Stawicki SP (Invited Speaker). Postmortem use of advanced imaging techniques: is autopsy going digital? The Ohio State University Medical Center, Department of Surgery, Grand Rounds, Columbus, Ohio, November 13, 2008.

Steinberg SM. Preventing surgical complications. Marietta Memorial Hospital, Continuing Medical Education, Marietta, Ohio, April 2, 2009.

Stewart T. Chest trauma. Pike Community Hospital, Emergency Department Nurses and Emergency Medical Service, Waverly, Ohio, February 26, 2009.

Thomas YM. Penetrating trauma: cases and management issues. Greene Memorial Hospital, Third Annual Regional Trauma Symposium, Xenia, Ohio, October 22, 2008.

Thomas YM. Trauma and the ICU. The Ohio State University Medical Center, SICU Education Committee Lunch and Learn, Columbus, Ohio, April 16, 2009.

Thomas YM. Trauma case review: mechanisms and management issues. The Ohio State University Medical Center, Nursing Trauma Case Review, Columbus, Ohio, September, 24–25, 2008.

Wisler J, Miller SF. Freon contact frostbite injury of the hand requiring split-thickness skin grafting and multiple digital amputations. Great Lakes Burn Association, Annual Meeting, Akron, Ohio, September 25–26, 2008.

Yeager S. Endpoints of resuscitation. The Ohio State University Medical Center, Advanced Trauma Tactics, Columbus, Ohio, February 18, 2009.

Yeager S. Traumatic brain injury. The Ohio State University Medical Center, Advanced Trauma Tactics, Columbus, Ohio, February 18, 2009.

General and Gastrointestinal Surgery



W. Scott Melvin, M.D.

Chief, Division of General and Gastrointestinal Surgery
Director, Center for Minimally Invasive Surgery

The Division of General and Gastrointestinal Surgery is committed to excellence in education, training, research, and clinical care in foregut and colorectal surgery. We strive to offer the newest and most cutting-edge treatments. Our surgeons are leaders in their respective fields, and we continue to recruit the best and brightest talent to expand our division's ability to offer the best to our patients. We continue to make contributions to surgery in the fields of gastroesophageal reflux disease, endolumenal and minimally invasive surgery, bariatric surgery, surgical endoscopy, and the treatment of malignant disease of the gastrointestinal tract, including pancreatic and esophageal cancer.

We have expanded the colorectal surgery program, adding two new faculty members during the past two years. This has allowed for continued growth in the type and number of colorectal treatment options offered at The Ohio State University Medical Center. This year, our team performed the first colorectal case at Ohio State's Medical Center to use the da Vinci robotic surgery system. Dr. Mark Arnold, Dr. Alan Harzman, and Dr. Syed Husain continue their work with the rotating colorectal fellows from Grant Medical Center. While at Ohio State, the fellows focus on advanced minimally invasive colorectal treatments, as well as advanced anorectal surgical cases. Our specialists are all board-certified in colorectal surgery and dedicate their expertise to the treatment of colorectal cancers and benign diseases.

The Ohio State University Comprehensive Weight Management and Bariatric Surgery Program experienced another year of growth and expansion under the leadership of our physicians. The bariatric surgery program offers a variety of weight loss options tailored to the individual patient, including various gastric banding procedures, Roux-en-Y gastric bypass, and single-incision surgery. This year,

the program relocated to the Martha Morehouse Medical Plaza. The move to this location allows us to offer comprehensive care in a multi-specialty clinical location. Now patients have a “one-stop-shop” option when considering bariatric surgery. Patients can have labs drawn, meet with a dietitian, and see their surgeon, all in one setting. This has allowed us to increase our surgical volume this year to more than 300 bariatric cases, making us the largest bariatric surgery program in Central Ohio.

Since 2007, the surgeons in our division have advanced the options in minimally invasive surgery for our patients. The expanding field of natural orifice transluminal endoscopic surgery (NOTES) first gained a foothold at Ohio State. Researchers continue to investigate the possibilities of truly incisionless surgery, to reduce the trauma associated with many intra-abdominal surgical procedures. We were the first clinical site to have an approved protocol to investigate NOTES and how procedures using this technique can be safe and effective. From this work, our division published the world’s first journal article reporting the human trial data obtained. This year, under the direction of Dr. Jeffrey Hazey, Ohio State was the first medical center to perform a NOTES procedure in a Food and Drug Administration (FDA)-approved clinical trial.

In basic and translational science research, Chandan Sen, Ph.D., director of the Comprehensive Wound Center and vice chairman for research in the Department of Surgery, is principal investigator for three active National Institutes of Health (NIH) research projects with total funding exceeding \$3.5 million. Dr. Sen also serves as associate dean for translational and applied research in the College of Medicine and leads the Medical Center’s Technology Commercialization and Industry Partnership programs. The primary focus of his laboratory is the study of tissue injury, repair, remodeling, and survival. Dr. Sen served as chair of the session on genetics in wound healing at the 2009 Gordon Research Conference on Tissue Repair. He was named as a permanent member of the National Institutes of Health Surgery, Anesthesia, and Trauma Study Section in 2009. Dr. Sen presented the Van Lierre lecture at the Robert C. Byrd Health Sciences Center of West Virginia University, in Morgantown, W.Va., where he was the chief guest at the center’s 2009 research day and convocation. Dr. Sen, executive director of the Comprehensive Wound Center, has established a clinical wound-healing program with Dr. Richard Schlanger. The clinical studies are based in the wound clinic at University Hospital East, where Dr. Schlanger collaborates with the Sen team to execute the clinical work. Dr. Sen serves on the board of directors of the Wound Healing Society. He is editor-in-chief of the international peer-reviewed journal *Antioxidants & Redox Signaling*, which has an impact factor of 6.2 and ranks number one in the field. Dr. Sen serves as associate editor of *Physiological Genomics*, a journal of the American Physiological Society. In addition, he serves on the editorial boards of six other journals and as a peer reviewer for more than 25 major journals. Dr. Sen is program director of the Novel Clinical and Translational Methodologies Program of the Ohio State Center for Clinical and Translational Science (CCTS). The CCTS was recently awarded an NIH Clinical and Translational Science Award (CTSA) grant of \$34.1 million. Dr. Sen also serves as a voting member of the NIH’s national CTSA Public-Private Partnership Steering Committee. In 2009, he was designated as an NIH Champion of Change for The Ohio State University.

Dr. Christopher Ellison, the Robert M. Zollinger professor and chairman of surgery, continues to serve as associate vice president for health sciences and vice dean of clinical affairs in the College of Medi-

cine and as a director of the American Board of Surgery. Repeatedly recognized as one of the nation's top physicians, Dr. Ellison was listed again this year by Best Doctors in America. His monograph titled "Zollinger-Ellison Syndrome: A Comprehensive Review of Historical, Scientific, and Clinical Considerations" was published in the January 2009 issue of *Current Problems in Surgery*. Dr. Ellison maintains an active clinical practice focusing on pancreatic and esophageal diseases, and he continues to serve as an outstanding teacher of medical students and residents.

Dr. Scott Melvin is chief of the division and director of the Center for Minimally Invasive Surgery. His clinical practice focuses on advanced minimally invasive surgical treatments for gastroesophageal reflux disease and other esophageal disorders, as well as advanced hepatobiliary surgery. In 2008, Dr. Melvin was named vice chairman for academic and administrative affairs in the Department of Surgery. In this role, he mentors the department's junior faculty as they develop their academic practice. A recognized mentor of medical students and residents, Dr. Melvin received the Faculty Award from the Landacre Honor Society, the student research society, in recognition of his mentorship in research. Under his mentorship, Dr. Peter Nau, a fellow in advanced gastrointestinal surgical research this year, received a career development grant from the American Hepato-Pancreato-Biliary Association. Dr. Melvin is a member of a variety of local, national, and international societies. He serves as secretary of the Society of American Gastrointestinal and Endoscopic Surgeons and chairs the society's development committee.

Dr. Mark Arnold is vice chairman for surgical education in the Department of Surgery and director of the general surgery residency program, which continues to grow in prestige and volume. Under his direction, the program has grown to 55 residents, graduating five per year. Dr. Arnold also participates as an instructor for the colorectal fellowship program. While participating in all levels of education, he maintains a busy clinical practice that focuses on treatment of colorectal diseases and disorders.

Dr. Alan Harzman joined the division in 2007, and since then has built an extremely busy practice. His primary clinical focus is the treatment of colorectal diseases and disorders, and he offers advanced minimally invasive approaches for many of these. Dr. Harzman has quickly become a recognized educator of residents and medical students. In 2007, he received the department's Faculty Teaching Award as chosen by the general surgery residents, and in 2008, he received the Faculty Teaching Award as chosen by the medical students. Dr. Harzman continues to participate as a faculty instructor for the Colorectal Fellowship Program.

Dr. Jeffrey Hazey continues to be a recognized national leader in the areas of surgical endoscopy and NOTES. His clinical practice focuses on advanced therapeutic endoscopy, including ERCP, and advanced minimally invasive surgical procedures. Under his direction, this was the third year for the Fellowship in Advanced Therapeutic Endoscopy and Gastrointestinal Surgery. Dr. Hazey is a committed educator, both within the Medical Center, where he trains medical students, residents, and practicing physicians in continuing medical education courses, and at the national level. This year, he was an invited speaker at a number of national and international meetings, and he was chosen by the Society of Gastrointestinal and Endoscopic Surgeons to participate in the training of surgical teams in Cape Verde, South Africa. Dr. Hazey continues to obtain extramural funding for NOTES-related research, and he is

currently the principal investigator for the world's first FDA-approved clinical trial of NOTES technology.

Dr. Syed Husain joined our division in August 2008. Prior to his appointment, Dr. Husain completed fellowships in colorectal surgery and minimally invasive surgery. This training makes him uniquely qualified to offer the most advanced surgical treatment options for colorectal diseases and disorders. Dr. Husain has an interest in robotic surgical treatment options, and in 2009, he completed the first robotic-assisted colorectal procedure using the da Vinci system at Ohio State's Medical Center. As his practice continues to grow, we look forward to his participation in our ongoing research and educational endeavors.

Dr. Andrei Manilchuk continues to develop his clinical practice in general surgery. He has participated in various workshops in advanced surgical techniques for colon surgery and for abdominal wall reconstruction. Dr. Manilchuk continues to be a valuable resource for a variety of surgical diseases. He is a recognized teacher of residents and medical students.

Dr. Dean Mikami has been an active member of our division since 2003. His clinical practice focuses on advanced minimally invasive surgery, including laparoscopic bariatric surgery, hernia repair, and a variety of other procedures. An active researcher, Dr. Mikami has ongoing funding to investigate novel treatment options for obesity. He participates in the NOTES research within our division as well. Dr. Mikami is an active member of the surgical community on both national and international levels. In 2008, he was appointed to the Communication and Learning Center Committees of the American Society of Metabolic and Bariatric Society. He is a frequent course instructor at national meetings, lecturing on topics ranging from endolumenal treatment options for obesity to the latest in minimally invasive hernia repair. Dr. Mikami is an active educator of our own medical students and residents, directing courses designed specifically for the surgeon-in-training.

Dr. Peter Muscarella is director of the surgical clerkship for medical students. In this role, he mentors medical students as they pursue careers in the surgical fields. Dr. Muscarella's clinical practice focuses on advanced hepatobiliary surgery and treatment options for pancreatic disease. He is active on the national scene, and is a member of the Young Surgeons Committee of the American College of Surgeons.

Dr. Vimal Narula continues to maintain a busy clinical practice focusing on advanced therapeutic endoscopy, including ERCP, and minimally invasive surgical treatments for common general surgery procedures. Dr. Narula is an active member of the educational team, and this year he was appointed to implement the new American College of Surgeons clinical skills curriculum for general surgery residents. He also serves as an instructor for continuing medical education courses offered through the Center for Minimally Invasive Surgery.

Dr. Bradley Needleman continues to serve as director of the Bariatric Surgery Program. Under Dr. Needleman's guidance, the program experienced significant growth this year. Surgical volume for bariatric surgery continues to grow, and this year he and Dr. Mikami performed more than 300 primary

bariatric surgery operations. Additionally, Dr. Needleman and the bariatric team have established a multi-modality comprehensive weight management program office. Dr. Needleman is an active member of national societies, and serves on a number of local and national committees.

Dr. Sashwati Roy continues to build a diabetic wound healing program, in partnership with the teams of Dr. Sen and Dr. Melvin. In particular, her program focuses on dead cell recognition and clearance from the chronic wound of diabetics. Dr. Roy is an expert in microarray analyses and data mining in functional genomics, as well as laser capture microdissection. She is a principal investigator for three projects on wound healing. Dr. Roy published six papers in scholarly journals this year, and during her career, she has published more than 150 journal articles and book chapters. She continues to serve on the education committee of the Davis Heart and Lung Research Institute and enjoys working with undergraduates, medical students, and residents interested in the basic science of wound healing.

Dr. Richard Schlanger serves as clinical director of the Wound Healing and Hyperbaric Center, at University Hospital East's Comprehensive Wound Care Center. He maintains an extremely busy general surgery clinical practice, with a specialty focus on wound healing. Dr. Schlanger is a recognized leader in clinical wound healing research and a frequently-invited speaker at national and international meetings. This year, he traveled to Luxembourg, where he was a guest speaker and moderator at the Pan European Tissue Restoration Society Conference. Dr. Schlanger collaborates with our division's basic science research program, which specializes in wound care research.

Minimally Invasive Surgery

The Center for Minimally Invasive Surgery (CMIS) is a multidisciplinary center dedicated to the achievement of excellence in patient care, clinical training, research, and outcomes studies pertaining to the techniques and technology of minimally invasive surgery. The center strives to expand the ever-changing field of surgery, and this year brought continued expansion of our educational and research endeavors.

At the Center for Minimally Invasive Surgery, surgeons and researchers continue to push the boundaries of current surgical techniques with natural orifice transluminal endoscopic surgery (NOTES). NOTES is the process of performing surgery through naturally existing orifices, thus eliminating the need for external incisions. It is a trend that has been gaining interest in the surgical community. We are focused on continued development of technology and techniques for NOTES, with the hope that someday common surgical procedures can be totally incisionless.

This year, CMIS researchers led by principal investigator Dr. Jeffrey Hazey completed two of the largest series of natural orifice transluminal endoscopic peritoneoscopy procedures in North America: 40 subjects who underwent transluminal endoscopic peritoneoscopy (TEP) prior to gastric bypass surgery; and 20 subjects who underwent TEP prior to surgical treatment for pancreatic head tumor. Dr. Hazey has received several grants to continue his NOTES work. The Natural Orifice Surgery Consortium for Assessment and Research (NOSCAR) has awarded him a grant to continue his NOTES work with the gastric bypass patient population, with a project titled "Feasibility of Diagnostic Transluminal Endoscopic Peritoneoscopy for Abdominal Insufflation, Adhesiolysis, and Trocar Placement in

Patients who Require Laparoscopic Access.” Dr. Hazey has also received a grant from Ethicon Endo-Surgery, Inc., which he will use to investigate gastrotomy closure in patients with pancreatic head tumors who have undergone transluminal endoscopic peritoneoscopy. We are currently enrolling patients to participate in both trials.

Dr. Peter Nau received a grant from the American Hepato-Pancreato-Biliary Association, for his project titled “Development of a Novel Repair for Iatrogenic Common Bile Duct Injuries with a Biosynthetic Graft.” The gold standard repair of a common bile duct defect remains a Roux-en-Y hepaticojejunostomy. This procedure is not without complications, both acute and long-term. Dr. Nau’s project seeks to test a novel approach for repairing common bile duct injuries with a biosynthetic graft, reconstructing the anatomy without an intestinal bypass. Dr. Nau is a third-year resident in general surgery who completed his one-year appointment as a postdoctoral researcher in the Center for Minimally Invasive Surgery on June 30, 2009.

CMIS entered into a research partnership this year with Covidien. As part of this partnership, CMIS investigators will work with Covidien to test surgical devices. In addition, Covidien will sponsor investigator-initiated research, including clinical trials with the bariatric patient population.

This year, CMIS completed an agreement to receive grant funding from Covidien over the next three years to help support its educational and training endeavors. This funding will help support clinical and research fellowship opportunities offered by CMIS and will allow the center to add a variety of structured programs in laparoscopic education to residents, fellows, and medical students. This new funding will also allow the center to offer instruction to surgeons and practicing physicians on a regional, national, and international stage, to teach techniques in minimally invasive surgery using a structured, didactic, practical, and laboratory experience. CMIS will continue to offer new courses focused on emerging technologies and techniques that have recently been introduced to surgeons in the United States, such as NOTES and new endolumenal surgical procedures.

This year brought continued success for many of our annual postgraduate educational courses. Topics this year included transoral incisionless fundoplication (TIF) using the EsophyX device for gastroesophageal reflux disease, endolumenal tissue fusion using the StomaphyX device, laparoscopic hernia repair, advanced technology in NOTES, and our Ninth Annual Advances in Minimally Invasive Surgery. Each program consisted of a combination of live case broadcasts and didactic and laboratory sessions. In August 2008, Ohio State hosted its first Masters in Bariatric Surgery Course, under the direction of Dr. Bradley Needleman, director of Ohio State’s Bariatric Surgery Program. In March 2009, CMIS hosted its first robotic surgery course for urology residents, titled “Urology Resident Preceptorship in Robotic Surgery.” During this two-day program, didactic presentations, procedural video sessions, and live operative case broadcasts were offered. CMIS faculty trained more than 250 surgeons, residents, students, and allied health-care professionals this year in these educational programs.

Ohio State’s Robotic Surgery Training Center continued to be successful this year. More than 129 da Vinci training programs were held at Ohio State, with a total of 134 participants, including surgeons,

nurses, and physician assistants from 20 states and around the world. Programs included training in techniques for general, gynecologic, urologic, and cardiothoracic robotic surgery.

Our minimally invasive surgery training program, a one-year, dedicated experience in advanced laparoscopic surgery, remains a sought-after position. This year, we welcomed three new clinical assistant professors, Dr. Sebastian Demyttenaere, Dr. Brian Winkleman, and Dr. Joel Anderson. Dr. Demyttenaere had a very busy clinical year, completing more than 450 advanced laparoscopic surgery and endoscopy procedures. He participated in a number of research projects that led to multiple publications and a presentation at the national level. Dr. Demyttenaere has returned to Montreal, Canada, where his practice will focus on minimally invasive surgery. Dr. Winkleman was also a very active member of our team this year, completing more than 450 advanced laparoscopic and endoscopic procedures. In addition to his clinical responsibilities, he participated in ongoing research projects. Dr. Winkleman has taken a position with a practice in Chicago, Ill., where he will offer bariatric and other advanced minimally invasive procedures to his patients. Dr. Anderson, who completed our one-year training program in advanced therapeutic endoscopy and gastrointestinal surgery, had an extremely busy clinical year. He completed more than 150 advanced laparoscopic surgeries and more than 300 therapeutic and diagnostic endoscopies, including ERCP's, and he participated in a number of research projects that led to publications and presentations. Dr. Anderson joined a surgical practice at a Cleveland Clinic affiliate hospital, in Cleveland, Ohio.

The Center's collaboration with health-care teams at Ohio State's Medical Center will continue to foster innovation in clinical surgical care, education, and research pertaining to minimally invasive surgery, leading to new techniques and technology and providing the best in patient care in future years.

Faculty

W. Scott Melvin, M.D.

Professor of Surgery; Vice Chairman for Academic Affairs, Department of Surgery; Chief, Division of General and Gastrointestinal Surgery; Director, Center for Minimally Invasive Surgery

B.S.: Ohio Northern University, Ada, Ohio, 1983

M.D.: Medical College of Ohio, Toledo, Ohio, 1987

Specialty Training: University of Maryland, College Park, Md.; Ohio Digestive Disease Institute, Columbus, Ohio

Appointment: 1993

Specialty Interests: Gastrointestinal, hepatobiliary, and pancreatic surgery; advanced laparoscopic techniques

Research Interests: Laparoscopic surgery education and training, molecular biology of pancreatic cancer, experimental therapies for pancreatic cancer



Melvin

Joel B. Anderson, M.D.

Clinical Assistant Professor of Surgery

B.S.: Grand Valley State University, Allendale, Mich., 1999

M.D.: Michigan State University, East Lansing, Mich., 2003

Specialty Training: Michigan State University, East Lansing, Mich., 2003–2008

Appointment: 2008

Specialty Interests: Minimally invasive surgery

Research Interests: Minimally invasive surgery



Anderson

Mark W. Arnold, M.D.

Professor of Clinical Surgery; Vice Chairman for Surgical Education, Department of Surgery

B.A.: University of Virginia, Charlottesville, Va., 1979

M.D.: New York University, New York, N.Y., 1983

Specialty Training: Jackson Memorial Hospital, University of Miami Medical Center, Miami, Fla.; Grant Medical Center, Columbus, Ohio

Appointment: 1990

Specialty Interests: Colon and rectal surgery

Research Interests: Radioimmunoguided antibodies for diagnosis and treatment of colon and rectal cancers



Arnold

Sebastian V. Demyttenaere, M.D.

Clinical Assistant Professor of Surgery

M.D.: McGill University, Montreal, Quebec, Canada, 2002

M.S.: McGill University, Montreal, Quebec, Canada, 2006

Specialty Training: McGill University Health Centre, Montreal, Quebec, Canada, 2002–2008

Appointment: 2008

Specialty Interests: Minimally invasive surgery

Research Interests: Minimally invasive surgery



Demyttenaere

E. Christopher Ellison, M.D.

The Robert M. Zollinger Professor of Surgery; Chairman, Department of Surgery; Associate Vice President for Health Sciences and Vice Dean of Clinical Affairs, College of Medicine

B.S.: University of Wisconsin, Madison, Wis., 1972

M.D.: Medical College of Wisconsin, Milwaukee, Wis., 1976

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1993

Specialty Interests: Surgery of the liver, biliary tree, and pancreas

Research Interests: Gastrinoma and Zollinger-Ellison syndrome, pancreatic and hepatic cancer



Ellison

Alan E. Harzman, M.D.

Assistant Professor of Clinical Surgery

B.S.: Vanderbilt University, Nashville, Tenn., 1997

M.D.: Washington University, St. Louis, Mo., 2001

Specialty Training: Residency in general surgery, University of Texas Southwestern Medical Center, Dallas, Texas; fellowship in colon and rectal surgery, Baylor University Medical Center, Dallas, Texas

Appointment: 2007

Specialty Interests: General surgery, colon and rectal surgery

Research Interests: General surgery, colon and rectal surgery



Harzman

Jeffrey W. Hazey, M.D.

Assistant Professor of Surgery

B.A.: Miami University, Oxford, Ohio, 1987

M.D.: Case Western Reserve University, Cleveland, Ohio, 1992

Specialty Training: Residency in general surgery, University Hospitals of Cleveland; fellowship in nutrition and surgery research, Case Western Reserve University/Mount Sinai Medical Center; fellowship in advanced laparoscopic and endoscopic surgery, Cleveland Clinic, Cleveland, Ohio

Appointment: 2003

Specialty Interests: Minimally invasive surgery, advanced endoscopy, endoscopic retrograde cholangiopancreatography

Research Interests: Minimally invasive surgery, natural orifice transluminal endoscopic surgery (NOTES), endolumenal treatment options



Hazey

Syed G. Husain, M.D.

Assistant Professor of Clinical Surgery

M.B.B.S.: Dow Medical College, Karachi, Pakistan

Specialty Training: Residency in general surgery, Harlem Hospital Center, New York, N.Y.; fellowship in clinical research, University of Illinois at Chicago; fellowship in minimally invasive surgery, University of Rochester, Rochester, N.Y.; fellowship in colorectal surgery, Brown University, Providence, R.I.

Appointment: 2008

Specialty interests: Minimally invasive colorectal surgery

Research Interests: Natural orifice transluminal endoscopic surgery (NOTES)



Husain

Andrei V. Manilchuk, M.D.

Assistant Professor of Clinical Surgery

M.D.: Gorky State Medical Institute, Nizhny Novgorod, Russia, 1984

Specialty Training: General surgery and surgical oncology, Nizhny Novgorod Medical Academy and Regional Cancer Center, Nizhny Novgorod, Russia; general surgery, The Ohio State University, Columbus, Ohio

Appointment: 2003

Specialty Interests: Gastrointestinal and pancreatobiliary surgery



Manilchuk

Dean J. Mikami, M.D.

Assistant Professor of Surgery

B.A.: University of Hawaii, Manoa, Hawaii, 1991

M.D.: University of Kansas, Kansas City, Kan., 1997

Specialty Training: Residency in general surgery and fellowship in minimally invasive surgery, The Ohio State University, Columbus, Ohio

Appointment: 2003

Specialty Interests: Minimally invasive surgery, bariatric surgery, hernia treatment options

Research Interests: Minimally invasive surgery, natural orifice transluminal endoscopic surgery (NOTES)



Mikami

Peter Muscarella, II, M.D.

Associate Professor of Surgery; Director, Surgical Clerkship

B.S.: University of Rochester, Rochester, N.Y., 1989

M.D.: New York Medical College, Valhalla, N.Y., 1993

Specialty Training: Residency in general surgery, The Ohio State University, Columbus, Ohio

Appointment: 2000

Specialty Interests: General surgery, endocrine gastrointestinal disease, liver, pancreas

Research Interests: Pancreatic cancer, pancreatic neuroendocrine tumors



Muscarella

Vimal K. Narula, M.D.

Clinical Assistant Professor of Surgery

B.S.: Marshall University, Huntington, W.Va., 1995

M.D.: Marshall University, Huntington, W.Va., 1999

Specialty Training: Residency in general surgery, Marshall University, Huntington, W.Va.; fellowship in minimally invasive surgery and fellowship in advanced therapeutic endoscopy, The Ohio State University Medical Center, Columbus, Ohio

Appointment: 2006

Specialty Interests: Laparoscopic, foregut, and hepatobiliary surgery

Research Interests: Minimally invasive techniques, robotic surgery, natural orifice transluminal endoscopic surgery (NOTES)



Narula

Bradley J. Needleman, M.D.

Assistant Professor of Clinical Surgery; Director, Bariatric Surgery Program

B.A.: Vassar College, Poughkeepsie, N.Y., 1990

M.D.: Mount Sinai School of Medicine, New York, N.Y., 1994

Specialty Training: Residency in general surgery, Washington Hospital Center, Washington, D.C.; fellowship in minimally invasive surgery, The Ohio State University, Columbus, Ohio

Appointment: 2000

Specialty Interests: Advanced laparoscopic surgery, obesity surgery

Research Interests: Minimally invasive surgery, surgical education



Needleman

Sashwati Roy, Ph.D.

Assistant Professor of Surgery

B.S.: Meerut University, Meerut, India, 1984

M.S.: Meerut University, Meerut, India, 1986

Ph.D.: University of Kuopio, Kuopio, Finland, 1994

Appointment: 2000

Research Interests: Antioxidant and redox biology focusing on signal transduction and gene expression



Roy

Richard E. Schlanger, M.D., Ph.D.

Assistant Professor of Clinical Surgery; Director, Center for Wound Management, University Hospital East

M.D.: Faculté de Médecine, Toulouse, France, 1980

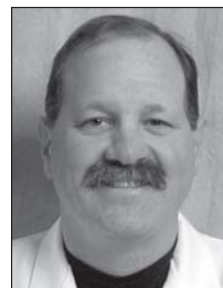
Ph.D.: Faculté de Médecine, Toulouse, France, 1982

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 2000

Specialty Interests: General surgery, wound healing

Research Interests: Wound healing



Schlanger

Chandan K. Sen, Ph.D.

Professor of Surgery; Vice Chairman for Research, Department of Surgery; Associate Dean for Translational and Applied Research, College of Medicine; Deputy Director, Davis Heart and Lung Research Institute; Director, DNA Microarray and Genetics Facility, Davis Heart and Lung Research Institute; Professor, Department of Molecular and Cellular Biochemistry

B.S.: Calcutta University, Calcutta, India, 1987

M.S.: Calcutta University, Calcutta, India, 1990

Ph.D.: University of Kuopio, Kuopio, Finland, 1994

Appointment: 2000

Research Interests: Wound healing, redox control of biological events, role of oxygen- and nitrogen-derived species in signal transduction and gene expression

*Sen***Brian J. Winkleman, M.D.**

Clinical Assistant Professor of Surgery

B.S.: Indiana University, Bloomington, Ind., 1999

M.D.: Indiana University, Indianapolis, Ind., 2003

Specialty Training: Residency in general surgery, The Ohio State University Medical Center, Columbus, Ohio

Appointment: 2008

Specialty Interests: Minimally invasive surgery

Research Interests: Minimally invasive surgery, duodenal ulcer disease, colorectal cancer screening

*Winkleman*

Clinical Faculty

Robert E. Falcone, M.D.

Clinical Professor of Surgery

B.A.: Kent State University, Kent, Ohio, 1973

M.D.: The Ohio State University, Columbus, Ohio, 1976

Jeffrey T. Innes, M.D.

Clinical Assistant Professor of Surgery

B.S.: University of California, Davis, Calif., 1976

M.D.: University of California, Davis, Calif., 1980

Bruce A. Kerner, M.D.

Clinical Assistant Professor of Surgery

B.S.: University of Tampa, Tampa, Fla., 1980

M.D.: Chicago Medical School, Chicago, Ill., 1984

Richard C. Rooney, M.D.

Clinical Assistant Professor of Surgery

B.S.: University of Cincinnati, Cincinnati, Ohio, 1964

M.D.: University of Cincinnati, Cincinnati, Ohio, 1967

Thomas T. Vogel, M.D., Ph.D.

Clinical Assistant Professor of Surgery

B.A.: Holy Cross College, 1955

Ph.D.: The Ohio State University, Columbus, Ohio, 1962

M.D.: Georgetown University, Washington, D.C., 1965

Resident Staff

David M. Anderson, M.D.

PGY-1

B.S.: Murray State University, Murray, Ky., 1995

M.S.: University of Louisville, Louisville, Ky., 2004

M.D.: University of Louisville, Louisville, Ky., 2008

Catherine E. Beck, M.D.

PGY-1

B.S.: University of Wisconsin, Madison, Wis., 2003

M.D.: The Ohio State University, Columbus, Ohio, 2008

Myla N. Bennett, M.D.

PGY-3

B.S.: University of Michigan, Ann Arbor, Mich., 2001

M.D.: The Ohio State University, Columbus, Ohio, 2006

Lloyd G. Brown, M.D.

PGY-5

B.A.: University of Rochester, Rochester, N.Y., 1996

M.D.: University of Rochester, Rochester, N.Y., 2002

M.S.: The Ohio State University, Columbus, Ohio, 2006

Amy L. Collins, M.D.

PGY-2

B.S.: Florida Atlantic University, Boca Raton, Fla., 2001**M.D.:** University of South Florida, Tampa, Fla., 2007**Andrew O. Crockett, M.D.**

Surgical Critical Care Fellow

B.S.: University of Utah, Salt Lake City, Utah, 2001**M.D.:** University of Utah, Salt Lake City, Utah, 2005**H. Tracy Davido, M.D.**

PGY-3

B.A.: Cleveland State University, Cleveland, Ohio, 1993**M.D.:** University of Pittsburgh, Pittsburgh, Penn., 2002**Mary E. Dillhoff, M.D.**

Master of Medical Science Program

B.S.: University of Cincinnati, Cincinnati, Ohio, 2001**M.D.:** University of Cincinnati, Cincinnati, Ohio, 2005**M.S.:** The Ohio State University, Columbus, Ohio, 2009**Jeffrey L. Eakin, M.D.**

PGY-3

B.A.: Miami University, Oxford, Ohio, 2001**M.D.:** The Ohio State University, Columbus, Ohio, 2006**David C. Evans, M.D.**

PGY-3

B.S.: Duke University, Durham, N.C., 2002**M.D.:** Duke University, Durham, N.C., 2006**Bryan T. Fisher, M.D.**

PGY-4

B.S.: Tennessee State University, Nashville, Tenn., 2000**M.D.:** University of Wisconsin, Madison, Wis., 2004**Mason G. Fisher, M.D.**

PGY-4

B.A.: Miami University, Oxford, Ohio, 1999**M.D.:** The Ohio State University, Columbus, Ohio, 2003**M.S.:** The Ohio State University, Columbus, Ohio, 2007

Meghan R. Forster, M.D.

PGY-3

B.A.: DePauw University, Greencastle, Ind., 1998**M.D.:** University of Cincinnati, Cincinnati, Ohio, 2004**M.S.:** The Ohio State University, Columbus, Ohio, 2008**Kristan D. Guenterberg, M.D.**

Master of Medical Science Program

B.S.: Walla Walla College, College Place, Wash., 2001**M.D.:** Loma Linda University, Loma Linda, Calif., 2005**M.S.:** The Ohio State University, Columbus, Ohio, 2009**Clinton R. "C.R." Hall, M.D.**

PGY-5

B.A.: Cumberland College, Williamsburg, Ky., 2000**M.D.:** University of South Florida, Tampa, Fla., 2004**Ioannis S. Hatzaras, M.D.**

Master of Science Program in Public Health

M.D.: Aristotle University of Thessaloniki, Thessaloniki, Greece, 2002**Lisa M. Haubert, M.D.**

Master of Science Program in Anatomy

B.S.: University of Akron, Akron, Ohio, 2002**M.D.:** The Ohio State University, Columbus, Ohio, 2006**Russell G. Hendrick, Jr., M.D.**

PGY-1

B.S.: Louisiana State University, Baton Rouge, La., 2001**M.S.:** Louisiana State University, Baton Rouge, La., 2003**M.D.:** Louisiana State University, New Orleans, La., 2008**Jon C. Henry, M.D.**

PGY-1

B.S.: The Ohio State University, Columbus, Ohio, 2004**M.D.:** The Ohio State University, Columbus, Ohio, 2008**Michael E. Johansen, M.D.**

PGY-1

B.S.: The Ohio State University, Columbus, Ohio, 2004**M.D.:** The Ohio State University, Columbus, Ohio, 2008

Natalie B. Jones, M.D.

PGY-4

B.A.: University of Virginia, Charlottesville, Va., 2000**M.D.:** The Ohio State University, Columbus, Ohio, 2004**M.S.:** The Ohio State University, Columbus, Ohio, 2008**Alistair J. Kent, M.D.**

PGY-1

B.S.: Harding University, Searcy, Ark., 2004**M.D.:** Washington University, St. Louis, Mo., 2008**Michelle Y. Kincaid, M.D.**

PGY-2

B.A.: Johns Hopkins University, Baltimore, Md., 2002**M.D.:** University of Maryland, Baltimore, Md., 2007**Michael W. Lin, M.D.**

PGY-1

B.S.: Washington University, St. Louis, Mo., 2003**M.D.:** University of Iowa, Iowa City, Iowa, 2008**Eric A. Luedke, M.D.**

PGY-2

B.S.: Marquette University, Milwaukee, Wis., 2003**M.D.:** Medical College of Wisconsin, Milwaukee, Wis., 2007**Humberto J. Martinez-Suarez, M.D.**

PGY-1

B.S.: University of Notre Dame, Notre Dame, Ind., 2004**M.D.:** University of Michigan, Ann Arbor, Mich., 2008**Alison McAnneny, M.D.**

PGY-2

B.A.: Colby College, Waterville, Maine, 2003**M.D.:** Pennsylvania State University, Hershey, Pa., 2007**Theodore W. Nagel, M.D.**

PGY-1

B.A.: St. Olaf College, Northfield, Minn., 2004**M.D.:** Northwestern University, Evanston, Ill., 2008

Peter N. Nau, M.D.

Master of Medical Science Program

B.S.: St. Olaf College, Northfield, Minn., 2001

M.D.: University of Iowa, Iowa City, Iowa, 2006

Ryan T. Novak, M.D.

PGY-1

D.Pharm.: University of Minnesota, Minneapolis, Minn., 2004

M.D.: University of Minnesota, Minneapolis, Minn., 2008

Iyore A. Otabor, M.D.

Master of Medical Science Program

B.S.: University of Massachusetts, Worcester, Mass., 2001

M.D.: Tufts University, Boston, Mass., 2006

Christian A. Otero, M.D.

PGY-2

M.D.: Escuela Colombiana de Medicina, Bogota, Colombia, 2002

Laura A. Peterson, M.D.

PGY-1

B.S.: University of Wisconsin, Madison, Wis., 2004

M.D.: University of Wisconsin, Madison, Wis., 2008

Thomas A. Pham, M.D.

PGY-2

B.S.: The Ohio State University, Columbus, Ohio, 2003

M.D.: University of Cincinnati, Cincinnati, Ohio, 2007

Maureen E. Pons, M.D.

PGY-2

B.A.: Cornell University, Ithaca, N.Y., 2003

M.D.: University of Connecticut, Farmington, Conn., 2007

Ricardo O. Quarrie, M.D.

PGY-2

B.S.: Florida State University, Tallahassee, Fla., 2003

M.D.: The Ohio State University, Columbus, Ohio, 2007

Geoffrey J. Roelant, M.D.

PGY-1

B.S.: Michigan Technological University, Houghton, Mich., 1999

M.S.: Michigan Technological University, Houghton, Mich., 2002

M.D.: University of Maryland, College Park, Md., 2008

Mohammadreza Rohaninejad, M.D.

PGY-5

M.D.: Tehran University of Medical Sciences, Tehran, Iran, 1992**Sumita Saha, M.D.**

PGY-3

B.S.: Washington College, Chestertown, Md., 2000**M.D.:** Georgetown University, Washington, D.C., 2006**Margaret S. Sawyer, M.D.**

PGY-5

B.S.: University of Michigan, Ann Arbor, Mich., 1997**M.D.:** The Ohio State University, Columbus, Ohio, 2002**M.B.A.:** The Ohio State University, Columbus, Ohio, 2007**Irina S. Shakhnovich, M.D.**

PGY-4

B.A.: Marquette University, Milwaukee, Wis., 1999**M.D.:** Medical College of Wisconsin, Milwaukee, Wis., 2004**M.S.:** The Ohio State University, Columbus, Ohio, 2009**Vance L. Smith, M.D.**

PGY-4

B.A.: Cedarville University, Cedarville, Ohio, 1997**M.S.:** Kansas State University, Manhattan, Kan., 1999**M.D.:** Medical College of Ohio, Toledo, Ohio, 2003**M.B.A.:** The Ohio State University, Columbus, Ohio, 2007**Tyler C. Spata, M.D.**

PGY-1

B.A.: University of Texas, Austin, Texas, 2003**M.D.:** University of Texas, Austin, Texas, 2008**Maakan Taghizadeh, M.D.**

PGY-3

B.S.: James Madison University, Harrisonburg, Va., 2000**M.D.:** University of Maryland, Baltimore, Md., 2006**Alicia C. Thomas, M.D.**

Master of Medical Science Program

B.S.: High Point University, High Point, N.C., 2002**M.D.:** University of North Carolina, Chapel Hill, N.C., 2006

Jonathan R. Wisler, M.D.

PGY-1

B.A.: Miami University, Oxford, Ohio, 2004

M.D.: University of Cincinnati, Cincinnati, Ohio, 2008

Jonathan C. Yang, M.D.

PGY-2

B.A.: University of California, Berkeley, Calif., 2002

M.D.: Drexel University, Philadelphia, Pa., 2007

Mission

The Division of General and Gastrointestinal Surgery is dedicated to the achievement of excellence in patient care, medical education, clinical training, and basic science and clinical research.

Research Programs

- Wound angiogenesis and healing.
- Cardiac remodeling.
- Vitamin E and neurodegeneration.
- Clinical wound healing.
- Cytomegalovirus infections and bacterial sepsis.
- Gene therapy and the effects of early genetic changes in pancreatic cancer.
- Minimally invasive surgical techniques.

Accomplishments in Research

- Division faculty members published 34 scholarly articles, abstracts, and chapters.
- Division faculty members are principal investigators for the first Food and Drug Administration-approved trial of natural orifice transluminal endoscopic surgery (NOTES).
- The Center for Minimally Invasive Surgery was awarded ongoing funding by Covidien to research minimally invasive surgical techniques and technology.

Active Research Grants

Hazey J. Development of a novel repair technique for perforation of the upper gastrointestinal tract using a bioabsorbable device. W. L. Gore and Associates, September 6, 2006 – December 31, 2008, \$40,219.

Hazey JW. Diagnostic transluminal endoscopic peritoneoscopy. Ethicon, Inc., January 9, 2009 – April 30, 2011, \$3,913.

Hazey JW. Feasibility of diagnostic transluminal endoscopic peritoneoscopy for abdominal insufflation, adhesiolysis, and trocar placement in patients who require laparoscopic access. Natural Orifice Surgery Consortium for Assessment, September 1, 2008 – August 31, 2009, \$41,250.

Hazey JW. Human clinical trial of diagnostic laparoscopy compared to diagnostic transgastric endoscopic peritoneoscopy for staging of pancreatic and esophageal cancer. Natural Orifice Surgery Consortium for Assessment, February 1, 2008 – January 3, 2010, \$40,000.

Hazey J, Melvin WS. Endolumenal instrumentation: trocar study. Stryker Endoscopy, June 1, 2006 – December 31, 2008, \$40,500.

Hazey J, Melvin WS. Endolumenal trials: peritoneoscopy study. Stryker Endoscopy, June 1, 2006 – December 31, 2008, \$56,400.

Hazey JW, Melvin WS. Transgastric bacterial contamination of the abdomen. Stryker Endoscopy, June 1, 2006 – September 1, 2010, \$35,000.

Lin C-LG, Sen CK. Consequence of RNA oxidation. National Institute on Aging, June 1, 2006 – May 31, 2009, \$344,851.

Melvin WS. Laboratory to evaluate endolumenal stapler and endolumenal ligasure. Covidien, December 4, 2008 – May 30, 2009, \$5,694.

Melvin WS. Skill retention and retraining using the da Vinci robot. Akron General Medical Center, May 1, 2009 – May 31, 2010, \$21,000.

Melvin WS, Liu JJ. In vivo assessment of a knotless barbed suture for single-layer closure of enterotomies: a clinical, biomechanical, and histological comparison against non-barbed suture. Covidien, November 12, 2008 – May 9, 2009, \$13,316 + \$11,479.

Melvin WS, Mikami DJ. The evaluation of the Sightline ColonoSight System. Stryker Corp., November 14, 2005 – August 31, 2010, \$6,500.

Mikami DJ. EndoFLIP study for accurate measurement of gastric pouch volume. Crospon, Ltd., December 15, 2008 – June 30, 2009, \$14,015.

Mikami DJ. Gore intestinal sleeve length study. W. L. Gore and Associates, July 10, 2007 – June 1, 2009, \$62,254.

Muscarella P. A phase 2, double-blind, placebo-controlled, multicenter adjuvant trial of the efficacy, immunogenicity, and safety of GI-4000. GlobeImmune, January 24, 2007 – December 31, 2010, \$127,150.

Needleman BJ, Melvin WS. Evaluation of endostapled anastomoses for laparoscopic gastric bypass: A prospective randomized comparison of the 3.5-mm vs. 4.8-mm circular stapler for creation of the gastrojejunostomy. United States Surgical Corporation, March 1, 2005 – September 30, 2009, \$11,613.

Needleman BJ, Mikami DJ. Multicenter, retrospective chart review to collect information on the frequency of trocar site hernias in gastric bypass patients. Covidien, August 8, 2008 – September 30, 2009, \$4,020.

Roy S, Cardounel AJ, Khanna S, Sen CK. Vitamin E tocotrienol and brain health. Carotech, July 27, 2007 – September 30, 2009, \$550,000.

Roy S, Gordillo GM, Parinandi NL, Sen CK. Mechanisms underlying impaired diabetic wound healing. National Institute of Diabetes and Digestive and Kidney Diseases, April 1, 2008 – January 31, 2012, \$255,000.

Roy S, Khanna S. Porcine burn study. Carotech, January 2, 2008 – January 31, 2011, \$150,000.

Roy S, Khanna S. Preclinical evaluation of autologous platelet-rich fibrin membrane for wound healing. Cascade Medical Enterprises, LLC, January 1, 2007 – December 31, 2008, \$55,000.

Roy S, Khanna S, Sen CK. Molecular pathways in the wound macrophage and their modulation. Glycotex, Inc., July 27, 2007 – August 31, 2009, \$250,000.

Sen CK, Askwith CC, Parinandi NL, Roy S. Vitamin E neuroprotection: novel molecular mechanisms. National Institute of Neurological Disorders and Stroke, January 1, 2008 – December 31, 2011, \$236,250.

Sen CK, Bergdall-Costell VK. Tissue oxygenation and wound angiogenesis. National Institute of General Medical Sciences, August 1, 2007 – May 31, 2011, \$ 250,800.

Sen CK, Gordillo GM. Efficacy of natural vitamin E tocotrienol on the treatment of scars. Carotech, February 1, 2008 – January 31, 2011, \$276,000.

Sen CK, Gordillo GM. TOPICAL II. Intercytex, October 1, 2007 – June 30, 2009, \$8,042.

Sen CK, Gordillo GM. Use of dermaPACE (Pulsed Acoustic Cellular Expression) device in conjunction with standard of care in the treatment of diabetic foot ulcers. Sanuwave, Inc., March 3, 2009 – March 31, 2010, \$1,530.

Sen CK, Gordillo GM, Roy S, Schlanger R. A randomized, controlled trial examining cellular energetics and oxygenation levels related to various wound-healing therapies. KCI USA, Inc., June 22, 2007 – June 21, 2009, \$124,878.

Sen CK, Roy S, Strauch AR III, Zweier JL. Oxygen sensitive signaling in primary cardiac fibroblast. National Heart, Lung, and Blood Institute, July 1, 2004 – June 30, 2009, \$1,320,166.

Sen CK, Roy S, Zweier JL. Redox control of wound healing. National Institute of General Medical Sciences, July 1, 2004 – September 30, 2008, \$1,085,470.

Clinical Programs

- Comprehensive general surgery service.
- Minimally invasive surgery.
- Bariatric surgery.
- Gastroesophageal reflux.
- Hepatobiliary and pancreatic cancer.
- Colorectal surgery.
- Wound care.

Accomplishments in Clinical Care

- Attending faculty in the division performed 11,144 operating room procedures and received 15,612 outpatient visits.

Clinical Statistics

OR Procedures	11,144
Outpatient Visits	15,612
Admissions	2,101
Patient Days	14,233
Average Length of Stay (Days)	6.48

Educational Programs

- Fully-accredited residency in general surgery.
- One-year clinical assistant professorship in minimally invasive surgery.
- One-year clinical assistant professorship in advanced therapeutic endoscopic surgery.
- Honors program in surgery for fourth-year medical students.
- Four-week subinternship in general surgery.
- Six-week clerkship in general surgery.
- Master of medical science program.

Accomplishments in Education

- Completion of the general surgery residency by Dr. Lloyd Brown, Dr. Clinton Hall, Dr. Mohammadreza Rohaninejad, and Dr. Margaret Sawyer.
- Completion of the clinical assistant professorship in minimally invasive surgery by Dr. Sebastian Demyttenaere and Dr. Brian Winkleman.

- Completion of the clinical assistant professorship in advanced therapeutic endoscopic surgery by Dr. Joel Anderson.
- Faculty trained more than 250 surgeons, residents, students, and allied health-care professionals from throughout the United States and the international community in educational programs offered through the Center for Minimally Invasive Surgery.

Accomplishments in Community Outreach

- Ninth Annual Advances in Minimally Invasive Surgery Course, Marco Island, Fla., February 27 – March 1, 2009.

Publications

Atalay M, Oksala N, Lappalainen J, Laaksonen DE, Sen CK, Roy S. Heat shock proteins in diabetes and wound healing. *Curr Protein Pept Sci* 2009;10(1):85–95.

Bergman S, Melvin WS. Natural orifice transluminal endoscopic surgery. *Surg Clin North Am* 2008;88(5):1131–1148.

Bergman S, Mikami DJ, Hazey JW, Roland JC, Dettorre R, Melvin WS. Endolumenal fundoplication with EsophyX: the initial North American experience. *Surg Innov* 2008;15(3):166–170.

Bloomston M, Kneile J, Butterfield M, Dillhoff M, Muscarella P, Ellison EC, Melvin WS, Croce CM, Pichiorri F, Huebner K, Frankel WL. Coordinate loss of fragile gene expression in pancreaticobiliary cancers: correlations among markers and clinical features. *Ann Surg Oncol* 2009;16(8):2331–2338.

Dillhoff M, Yates R, Wall K, Muscarella P, Melvin WS, Ellison EC, Bloomston M. Intraoperative assessment of pancreatic neck margins at the time of pancreaticoduodenectomy increases likelihood of margin-negative resection in patients with pancreatic cancer. *J Gastrointest Surg* 2009; 13(5):825–830.

Dundon JM, Davis SS, Hazey JW, Narula V, Muscarella P, Melvin WS. Radiofrequency energy delivery to the lower esophageal sphincter (Stretta procedure) does not provide long-term symptom control. *Surg Innov* 2008; 15(4):297–301.

Dundon JM, Muscarella P, Narula VK, Davis SS, Melvin WS. Long-term follow-up radiofrequency energy delivery to the gastroesophageal junction for the treatment of GERD. *Surg Innov* 2008; 15(4):297–301.

Gnyawali SC, Roy S, McCoy M, Biswas S, Sen CK. Remodeling of the ischemia-reperfused murine heart: 11.7-T cardiac magnetic resonance imaging of contrast-enhanced infarct patches and transmural. *Antioxid Redox Signal* 2009; 11(8):1829–1839.

Gordillo G, Fang H, Khanna S, Harper J, Phillips G, Sen CK. Oral administration of blueberry inhibits angiogenic tumor growth and enhances survival of mice with endothelial cell neoplasm. *Antioxid Redox Signal* 2009; 11(1):47–58.

Hampel H, Frankel WL, Martin E, Arnold M, Khanduja K, Kuebler P, Clendenning M, Sotamaa K, Prior T, Westman JA, Panescu J, Fix D, Lockman J, LaJeunesse J, Comeras I, de la Chapelle A. Feasibility of screening for Lynch syndrome among patients with colorectal cancer. *J Clin Oncol* 2008; 26(35):5783–5788.

Khanna S, Park HA, Sen CK, Golakoti T, Sengupta K, Venkateswarlu S, Roy S. Neuroprotective and antiinflammatory properties of a novel demethylated curcuminoid. *Antioxid Redox Signal* 2009; 11(3):449–468.

Kinnunen S, Oksala N, Hyypä S, Sen CK, Radak Z, Laaksonen DE, Szabo B, Jakus J, Atalay M. Alpha-Lipoic acid modulates thiol antioxidant defences and attenuates exercise-induced oxidative stress in standardbred trotters. *Free Radic Res* 2009; 43(8):697–705.

Lappalainen Z, Lappalainen J, Oksala NK, Laaksonen DE, Khanna S, Sen CK, Atalay M. Diabetes impairs exercise training-associated thioredoxin response and glutathione status in rat brain. *J Appl Physiol* 2009; 106(2):461–467.

Lau FC, Bagchi M, Sen CK, Bagchi D. Nutrigenomic basis of beneficial effects of chromium(III) on obesity and diabetes. *Mol Cell Biochem* 2008; 317(1–2):1–10.

Narula VK, Happel LC, Volt K, Bergman S, Roland JC, Dettorre R, Renton DB, Reavis KM, Needleman BJ, Mikami DJ, Ellison EC, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy does not require decontamination of the stomach in humans. *Surg Endosc* 2009; 23(6):1331–1336.

Rink C, Christoforidis G, Abduljalil A, Kontzialis M, Bergdall V, Roy S, Khanna S, Slivka A, Knopp M, Sen CK. Minimally invasive neuroradiologic model of preclinical transient middle cerebral artery occlusion in canines. *Proc Natl Acad Sci USA* 2008;105(37):14100–14105.

Roy S, Biswas S, Khanna S, Gordillo G, Bergdall V, Green J, Marsh CB, Gould LJ, Sen CK. Characterization of a preclinical model of chronic ischemic wound. *Physiol Genomics* 2009; 37(3):211–224.

Roy S, Khanna S, Hussain SR, Biswas S, Azad A, Rink C, Gnyawali S, Shilo S, Nuovo GJ, Sen CK. MicroRNA expression in response to murine myocardial infarction: miR-21 regulates fibroblast metalloprotease-2 via phosphatase and tensin homologue. *Cardiovasc Res* 2009; 82(1):21–29.

Roy S, Khanna S, Rink C, Biswas S, Sen CK. Characterization of the acute temporal changes in excisional murine cutaneous wound inflammation by screening of the wound-edge transcriptome. *Physiol Genomics* 2008; 34(2):162–184.

Selvendiran K, Kuppusamy ML, Bratasz A, Tong L, Rivera BK, Rink C, Sen CK, Kalai T, Hideg K, Kuppusamy P. Inhibition of vascular smooth-muscle cell proliferation and arterial restenosis by HO-3867, a novel synthetic curcuminoid, through up-regulation of PTEN expression. *J Pharmacol Exp Ther* 2009; 329(3):959–966.

Sen CK. Wound healing essentials: let there be oxygen. *Wound Repair Regen* 2009;17(1):1–18.

Sen CK, Roy S. Redox signals in wound healing. *Biochim Biophys Acta* 2008; 1780(11):1348–1361.

Steinhour E, Sherwani SI, Mazerik JN, Ciapala V, O'Connor Butler E, Cruff JP, Magalang U, Parthasarathy S, Sen CK, Marsh CB, Kuppusamy P, Parinandi NL. Redox-active antioxidant modulation of lipid signaling in vascular endothelial cells: vitamin C induces activation of phospholipase D through phospholipase A2, lipoxygenase, and cyclooxygenase. *Mol Cell Biochem* 2008; 315(1–2):97–112.

Tamama K, Sen CK, Wells A. Differentiation of bone marrow mesenchymal stem cells into the smooth muscle lineage by blocking ERK/MAPK signaling pathway. *Stem Cell Dev* 2008; 17(5):897–908.

Terentyev D, Györke I, Belevych AE, Terentyeva R, Sridhar A, Nishijima Y, de Blanco EC, Khanna S, Sen CK, Cardounel AJ, Carnes CA, Györke S. Redox modification of ryanodine receptors contributes to sarcoplasmic reticulum Ca²⁺ leak in chronic heart failure. *Circ Res* 2008; 103(12):1466–1472.

Abstracts

Anderson JB, Needleman BJ, Mikami DJ, Narula VK, Nau PN, Dettorre R, Demyttenaere SV, Winkleman BJ, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy does not lead to increased risk of infectious complications. *Surg Endosc* 2009; 23:S204–S341.

Demyttenaere SV, Bergman S, Anderson J, Dettorre R, Mikami DJ, Melvin WS. Transoral incisionless fundoplication for GERD: early North American results. *Surg Endosc* 2009; 23:S146–S182.

Demyttenaere SV, Bergman S, Winkleman BJ, Dettorre R, Mikami DJ, Needleman BJ. Gastric band manometry: are pressure measurements and the band pressure ratio useful? *Surg Endosc* 2009; 23:S204–S341.

Demyttenaere SV, Melvin WS. Laparoscopic repair of a right paraduodenal hernia. *Surg Endosc* 2009; 23:S183–S196.

Narula VK, Happel L, Bergman S, Roland JC, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy does not require decontamination of the stomach in humans. *Surg Endosc* 2009; 23:1331–1336.

Ren T, Wunderlich JE, Needleman BJ, Grants I, Javed AH, Christofi FL. Cyclic AMP signaling in the human enteric nervous system: visualization of Dogiel type II and spiny Dogiel type I neurons in response to forskolin or adenosine A2 agonist activation using an acrolein-derivatized CAMP antiserum. *Gastroenterology* 2009; 136(5):A-271, S1792.

Winkleman BJ, Nau PN, Needleman BJ, Mikami DJ. Endoflip: a novel device for precise measurement of gastric pouch volume and wall compliance. *Surg Endosc* 2009; 23:S204–S341.

Wunderlich JE, Ren T, Needleman BJ, Mikami DJ, Grants I, Christofi FL. Novel purinergic P1, P2X, and P2Y receptor signaling targets in the human enteric nervous system and glia. *Gastroenterology* 2009; 136(5):A-3.

Chapters

Mikami DJ, Beery PE, Ellison EC. Surgery in the pregnant patient. In: Townsend CM, Beauchamp RD, Evers BM, Mattotx KL (eds). *Sabiston Textbook of Surgery*. Philadelphia: Saunders Elsevier, 2008; 2236–2250.

Visiting Professorships

Hazey JW. Go Global Initiative. Society of American Gastrointestinal and Endoscopic Surgeons, Cape Verde Islands, Cape Verde, South Africa, January 24–31, 2009.

Melvin WS. Changing management of GERD and Barrett's esophagus. Albert Einstein University/Montefiore Medical Center, Masters of Surgery, New York, N.Y., September 30, 2008.

Melvin WS. Changing paradigms in the treatment of Barrett's esophagus. McGill University Department of Surgery, Ninth Annual Steinberg-Bernstein Visiting Professorship, Grand Rounds, Montreal, Canada, November 6, 2008.

Melvin WS. Go Global Initiative. Society of American Gastrointestinal and Endoscopic Surgeons, Cape Verde Islands, Cape Verde, South Africa, January 24–31, 2009.

Melvin WS. Microbiology in human NOTES. University of Texas Southwestern Medical Center, Dallas, Texas, September 11, 2008.

Melvin WS. Modern therapy for the treatment of gastroesophageal disease. Henry Ford Hospital, the Roy D. McClure Lectureship and Visiting Professorship in Surgery, Detroit, Mich., June 10, 2009.

Melvin WS. Natural orifice transluminal endoscopic surgery. Toledo Surgical Society, Toledo, Ohio, September 18, 2008.

Melvin WS. New treatments for gastroesophageal reflux disease. McGill University, Minimally Invasive Surgery Day, Montreal, Canada, November 5, 2008.

Schlanger RE. Treatment of soft tissue necrosis with hyperbaric oxygen. Hospital San Pietro Fatenbenefratelli, Grand Rounds, Rome, Italy, April 21–23, 2009.

International Presentations

Happel LC, Needleman BJ, Mikami DJ, Roland JC, Bergman S, Narula VK, Evans A, Volt K, Melvin WS, Hazey JW. Transgastric peritoneoscopy for evaluation of the abdominal wall to direct laparoscopic trocar placement. 11th World Congress of Endoscopic Surgery, Yokohama, Japan, September 5, 2008.

Husain S, Ahmed AR, Adeyeri A, Johnson J, Boss T, O'Malley W. An appraisal of abdominal procedures after gastric bypass. International Federation for the Surgery of Obesity, 13th World Congress, Buenos Aires, Argentina, September 24–27, 2008.

Husain S, Coniglio D, Ahmed AR, Johnson J, Boss T, O'Malley W. Improvements in Mallampati airway classification and ASA classification after Roux-en-Y gastric bypass. International Federation for the Surgery of Obesity, 13th World Congress, Buenos Aires, Argentina, September 24–27, 2008.

Melvin WS. Robotics and technology in general surgery. Robotic management of gastroesophageal surgery. World Robotics Symposium: Latin America, Sao Paulo, Brazil, October 24–25, 2008.

Mikami DJ, Needleman BJ, Happel LC, Narula VK, Roland JC, Bergman S, Durant J, Himpens J, Melvin WS. Natural orifice surgery: initial U.S. experience utilizing the StomaphyX device to reduce gastric pouches after Roux-en-Y gastric bypass. 11th World Congress of Endoscopic Surgery, Yokohama, Japan, September 4, 2008.

Narula VK, Happel LC, Volt K, Bergman S, Roland JC, Dettorre R, Renton DB, Reavis KM, Needleman BJ, Mikami DJ, Ellison EC, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy does not require decontamination of the stomach in humans. 11th World Congress of Endoscopic Surgery, Yokohama, Japan, September 4, 2008.

Schlanger RE. Recognition and treatment of soft tissue necrotic infections. Pan-European Tissue Restoration Society Conference, Luxembourg City, Luxembourg, April 17, 2009.

National Presentations

Anderson J, Needleman BJ, Mikami DJ, Narula VK, Nau PN, Demyttenaere SV, Winkleman BJ, Dettorre R, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy does not lead to increased risk of infectious complications. Society of American Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Phoenix, Ariz., April 22–25, 2009.

Demyttenaere SV, Nau P, Roland JC, Bittenbender P, Hazey JW, Muscarella P, Melvin WS, Ellison EC. From start to finish: 117 consecutive laparoscopic adrenalectomies (poster presentation). Society of American Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Phoenix, Ariz., April 22–25, 2009.

Happel LC, Anderson J, Needleman BJ, Mikami DJ, Narula VK, Roland JC, Bergman S, Ellison CE, Volt K, Evans A, Dettorre R, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy and bacterial contamination of the abdominal cavity in humans. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 12–16, 2008.

Hazey JW. Advanced upper endoscopy: treatment of GERD, Barrett's, and neoplasia. Society of American Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Flexible Endoscopy Postgraduate Course, Phoenix, Ariz., April 22, 2009.

Hazey JW. Endolumenal and transluminal endoscopy. Transoral drainage of pancreatic pseudocysts. American College of Surgeons, 94th Annual Clinical Congress, Subject-Oriented Symposium V, San Francisco, Calif., October 12–16, 2008.

Hazey JW. Endolumenal/NOTES hands-on course: NOTES gastric closure. Society of American Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Flexible Endoscopy Postgraduate Course, Phoenix, Ariz., April 22, 2009.

Hazey JW. Flexible endoscopic surgery course for MIS fellows. Society of American Gastrointestinal and Endoscopic Surgeons, University of Miami, Miami, Fla., September 24–25, 2008.

Hazey JW. Minimally invasive surgery, the next steps: NOTES in the foregut, transluminal drainage techniques, new diagnostic and therapeutic techniques. American College of Surgeons, 94th Annual Clinical Congress, Postgraduate Course, San Francisco, Calif., October 12–16, 2008.

Hazey JW. Surgery for chronic pancreatitis. The role of pancreatic stents in the management of chronic pancreatitis. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 12–16, 2008.

Hazey JW, Happel L, Needleman BJ, Mikami DJ, Narula VK, Roland JC, Bergman S, Ellison EC, Volt K, Evans A, Detorre R, Melvin WS. Transgastric Endoscopic Peritoneoscopy and Bacterial Contamination of the Abdominal Cavity in Humans. American College of Surgeons, 94th Annual Clinical Congress, Surgical Forum, San Francisco, Calif., October 12–16, 2008.

Melvin WS. Barrett's esophagus: treatment options. Society of American Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Phoenix, Ariz., April 23, 2009.

Melvin WS. Complications in abdominal surgery: getting out of trouble in the operating room: foregut. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 16, 2008.

Melvin WS. Contamination in NOTES procedures: how much and does it matter? Society of American Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Grand Rounds Master Course, Phoenix, Ariz., April 23, 2009.

Melvin WS. Diagnostic peritoneoscopy and liver biopsy in human natural orifice transluminal endoscopic surgery. University of California at San Diego, NOTES 2008 Update, San Diego, Calif., October 30, 2008.

Melvin WS (Course Director). Endoluminal surgery and NOTES. Society of American and Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Hands-on Course, Phoenix, Ariz., April 22, 2009.

Melvin WS. Endoluminal and transluminal endoscopic surgery. American College of Surgeons, 94th Annual Clinical Congress, Subject-Oriented Symposium V, San Francisco, Calif., October 16, 2008.

Melvin WS. Gastroesophageal reflux disease and achalasia: new treatment modalities and endoluminal approaches. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 14, 2008.

Melvin WS. High definition videos: will HD in the operating room make the operation safer?: laparoscopic distal pancreatectomy. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 15, 2008.

Mikami DJ. Endolumenal approaches to revisional bariatric surgery. American Society for Metabolic and Bariatric Surgery, 26th Annual Meeting, Grapevine, Texas, June 22, 2009.

Mikami DJ. Endolumenal approaches to revisional bariatric surgery. Digestive Disease Week, American Society for Gastrointestinal Endoscopy, Annual Meeting, Chicago, Ill., May 31, 2009.

Mikami DJ. Endolumenal pouch revision following Roux-en-Y gastric bypass. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 16, 2008.

Mikami DJ. Endoscopic gastric pouch reduction techniques. American College of Surgeons, 94th Annual Clinical Congress, American Society for Metabolic and Bariatric Surgery Flexible Endoscopy and Emerging Technology Course, San Francisco, Calif., October 11, 2008.

Mikami DJ. Optimizing outcomes for the bariatric surgical patient: the super obese: can a patient be too big? American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 13, 2008.

Nau P, Melvin WS, Bloomston M, Ellison EC, Muscarella P. Laparoscopic distal pancreatectomy with and without splenectomy: a retrospective review of one institution's experience. Society of University Surgeons, Annual Meeting, Fort Myers, Fla., February 3–6, 2009.

Nau P, Yuh B, Anderson J, Happel L, Narula VK, Needleman BJ, Ellison EC, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy for evaluation of the abdominal wall, adhesiolysis, and direction of trocar placement (poster presentation). Society of American Gastrointestinal and Endoscopic Surgeons, Annual Meeting, Phoenix, Ariz., April 22–25, 2009.

Nguyen NT, Pomp A, Needleman BJ, Mikami DJ, Provost D, Scott D, Jones D, Gallagher S, Dakin G, Gagner M, Murr M. Impact of staple height on the gastrojejunostomy during laparoscopic gastric bypass: a multicenter prospective randomized trial. American Society for Metabolic and Bariatric Surgery, 26th Annual Meeting, Grapevine, Texas, June 25, 2009.

Roy S (Invited Speaker). American College of Nutrition, Annual Meeting, Arlington, Va., October 2–5, 2008.

Miscellaneous Presentations

Ding J, Demyttenaere S, Mikami DJ. Developing a methodology to evaluate a novel fibrin sealant. The Ohio State University Medical Center, Research Day, Columbus, Ohio, April 10, 2009.

Harzman AE. Laparoscopic colon surgery for the general surgeon and video presentation. The Ohio State University Medical Center, Ninth Annual Advances in Minimally Invasive Surgery, New Paradigms in General Surgery, Marco Island, Fla., March 1, 2009.

Harzman AE. Surgical management of Crohn's disease and ulcerative colitis. Crohn's and Colitis Foundation of America, Annual Ohio Nurse's Day Education Program and Luncheon, Columbus, Ohio, February 7, 2009.

Hazey JW. Advanced hernia course. University of Wisconsin, Madison, Wis., May 28–29, 2009.

Hazey JW. Advanced laparoscopic bariatric and foregut surgery workshop. Society of American Gastrointestinal and Endoscopic Surgeons, Ethicon Endo-Surgery Institute, Cincinnati, Ohio, October 2–3, 2008.

Hazey JW. When a simple cholecystectomy isn't so simple. Society of Gastroenterology Nurses and Associates, National Meeting, St. Louis, Mo., June 1, 2009.

Henn MC, Demyttenaere S, Nau P, Beck C, Melvin WS. Assessment of a knotless barbed suture for single-layer closure of enterotomies: a clinical, biomechanical, and histological comparison against non-barbed suture. The Ohio State University Medical Center, Research Day, Columbus, Ohio, April 10, 2009.

Nau P, Yuh B, Anderson J, Happel L, Ellison EC, Melvin WS, Hazey JW. Transgastric endoscopic peritoneoscopy for evaluation of the abdominal wall, adhesiolysis, and direction of trocar placement in the morbidly obese. The Ohio State University Medical Center, Research Day, Columbus, Ohio, April 10, 2009.

Nau P, Yuh B, Muscarella P, Ellison EC, Anderson J, Happel L, Melvin WS, Hazey JW. Diagnostic transgastric endoscopic peritoneoscopy: extension of initial human trial for staging of pancreatic head masses. The Columbus Surgical Society, 20th Annual Presidential Symposium, Columbus, Ohio, February 28, 2009.

Nau P, Yuh B, Muscarella P, Ellison EC, Anderson J, Happel L, Melvin WS, Hazey JW. Diagnostic transgastric endoscopic peritoneoscopy: extension of initial human trial for staging of pancreatic head masses. The Ohio State University Comprehensive Cancer Center, the James Cancer Hospital and Solove Research Institute, 11th Annual Scientific Meeting, Columbus, Ohio, February 20, 2009.

Schlanger RE. Familiarization with new care standards for pressure ulcers and diabetic leg wounds. University of Toledo College of Medicine, 19th Annual Statewide Geriatric Medicine Conference, Cambridge, Ohio, October 17–19, 2008.

Schlanger RE. General surgical applications of oxygen therapy. The Ohio State University Medical Center, Department of Surgery, Grand Rounds, Columbus, Ohio, February 12, 2009.

Schlanger RE. Hyperbaric treatment for wound healing. American Society of Perianesthesia Nurses, Mount Carmel East Hospital, Columbus, Ohio, October 11, 2008.

Schlanger RE. Necrotizing fasciitis. The Ohio State University Medical Center, University Hospital East, Grand Rounds, Columbus, Ohio, November 14, 2008.

Schlanger RE. Peripheral arterial disease. The Ohio State University Medical Center, Comprehensive Wound Care Continuing Medical Education Event, Biomedical Research Tower, Columbus, Ohio, October 30, 2008.

Schlanger RE. Peripheral arterial disease. The Ohio State University Medical Center, Comprehensive Wound Care Continuing Medical Education Event, the Forum at Knightsbridge, Columbus, Ohio, August 19, 2008.

Schlanger RE. Peripheral arterial disease. The Ohio State University Medical Center, Comprehensive Wound Care Continuing Medical Education Event, the Forum at Knightsbridge, Columbus, Ohio, November 18, 2008.

Schlanger RE. Peripheral arterial disease. The Ohio State University Medical Center, University Hospital East, Nursing Grand Rounds, Columbus, Ohio, March 18, 2009.

Schlanger RE. Surgical infections and healing surgical wounds. The Ohio State University Medical Center, Surgery Honors Program Journal Club, Columbus, Ohio, October 7, 2008.

Yuh B, Nau P, Anderson J, Dettorre R, Needleman B, Mikami D, Narula V, Melvin WS, Hazey J. Transgastric peritoneoscopy for evaluation of the abdominal wall to direct laparoscopic trocar placement and evaluation of transgastric bacterial contamination. The Ohio State University Medical Center, Research Day, Columbus, Ohio, April 10, 2009.

Pediatric Surgery



Donna A. Caniano, M.D.
Chief, Division of Pediatric Surgery

The Division of Pediatric Surgery conducts its clinical, educational, research, and academic programs at the Nationwide Children's Hospital, the fourth busiest and fifth largest children's hospital in the United States. This year, *Parents* magazine ranked Nationwide Children's Hospital among the "10 Best Children's Hospitals," placing it sixth on this elite list. *U.S. News & World Report* recognized Nationwide Children's Hospital in all seven pediatric specialties, making it one of the top-ranked children's hospitals in the nation.

Expansion of clinical services was marked this year by the opening of the new Outpatient Surgery Center and the Gastroenterology/Motility Center, which connect to the main hospital facility. A new and enlarged Ronald McDonald House was opened in late 2008, making it a model for family-friendly accommodations. Construction is under way for the replacement hospital, a 12-story, 550-bed facility with occupancy expected by the end of 2012. This structure will serve as a major addition to the Columbus skyline and will offer a significant number of new professional and allied health-care jobs for Central Ohio.

In April 2009, the Division of Pediatric Surgery, sponsored a multidisciplinary international symposium, under the leadership of Dr. Marc Michalsky and Dr. Steven Teich, titled *Chronic Diseases in Childhood Obesity: Risks and Benefits of Early Intervention*. More than 300 pediatric specialists and surgeons from as far away as Australia and South America attended the two-day meeting. A highlight was the keynote address by former surgeon general Dr. Richard Cardona, who discussed the deleterious effects of obesity on world health. Speakers at the symposium from the Department of Surgery included Dr. Bradley Needleman, Dr. Marc Michalsky, and Dr. Donna Caniano.

The Pediatric Surgical Research Laboratory, directed by Dr. Gail Besner and Dr. David Brigstock, continued its remarkable success with five National Institutes of Health-funded grants to support basic science investigation in growth factor biology. Dr. Besner and her colleagues focus their work on heparin-binding EGF-like growth factor (HB-EGF), and its protective and preventive effects on intestinal ischemia and reperfusion injury. Preparatory work is under way to begin Phase I and II national clinical trials to evaluate the safety and efficacy of HB-EGF in the prevention of necrotizing enterocolitis, a major cause of intestinal loss in premature infants. Dr. Brigstock and his colleagues continue their study of the role of connective tissue growth factor in hepatic and pancreatic fibrosis, scarring, and tissue remodeling, which has significant implications for the clinical entities of cirrhosis and pancreatitis.

The Adolescent Bariatric Surgery Program, part of the Nationwide Children's Hospital Center for Healthy Weight and Nutrition, completed its participation in a Food and Drug Administration-approved multi-institutional clinical trial to evaluate the safety and efficacy of the Lap-Band in adolescents with morbid obesity. The early results in this patient population are quite favorable, in terms of weight loss, reversal of comorbid conditions, and safety. Dr. Marc Michalsky is a participant in an NIH-funded multi-institutional study, TEEN-LABS, which prospectively enrolls adolescents with morbid obesity, assesses their comorbid conditions, and follows their outcomes following weight reduction surgery.

The American College of Surgeons-accredited Level I Pediatric Trauma Program continues as one of the nation's busiest pediatric trauma facilities, with annual trauma admissions for the past three years averaging 1,300 patients. In addition, the Burn Program, verified as a Burn Center by the American Burn Association, remains active in advancing outpatient management of pediatric thermal injury through innovative wound management techniques.

On April 17, 2009, the Pediatric Trauma Program at Nationwide Children's Hospital, under the leadership of Dr. Jonathan Groner, sponsored the 10th Annual Pediatric Trauma Symposium, in collaboration with the other five pediatric hospitals in Ohio. The keynote speaker was Dr. Barbara Barlow, professor of surgery at Columbia University and director of surgery at Harlem Hospital, in New York City. Dr. Barlow presented "Journey to Injury Free," her pioneering work in developing the Injury Free Coalition for Kids, a national program of the Robert Wood Johnson Foundation. This program works with pediatric trauma centers in the United States to reduce injury through education, construction of safe play areas, and the development of safe, supervised play activities.

Dr. Gail Besner is a member of the Center for Perinatal Research of the Research Institute at Nationwide Children's Hospital. This year, Dr. Besner was awarded the John E. Fisher Endowed Chair in Neonatal Research, in recognition of her outstanding basic science work. She serves as director of the Pediatric Burn Program at Nationwide Children's Hospital and is associate program director of the residency in pediatric surgery. She is a member of the American College of Surgeons Surgical Research Committee.

Dr. David Brigstock is a principal investigator in the Center of Cell and Vascular Biology of the Research Institute at Nationwide Children's Hospital, where he continues his research on connective

tissue growth factor (CTGF) and its role in the fibrotic processes within the liver and pancreas. Dr. Brigstock serves as U.S. editor of *The Journal of Endocrinology*, and is an elected officer in the International CCN Society.

Dr. Allen Browne joined the Division of Pediatric Surgery this year as an associate professor of clinical surgery, bringing expertise in advanced minimally invasive surgery and a clinical interest in surgical weight reduction surgery for morbidly obese adolescents.

Dr. Donna Caniano continues to serve on the editorial boards of *The Journal of Pediatric Surgery* and *Pediatric Surgery International*. Dr. Caniano is a frequently-invited speaker on the topic of surgical ethics. This year, she was the invited speaker in several fund-raising venues for Nationwide Children's Hospital, showcasing the surgical outcomes for neonates with major congenital anomalies. She was featured in the inaugural issue of *Capital Style*, a regional publication that highlights women's accomplishments.

Dr. Renata Fabia serves as associate director of the Pediatric Burn Program. She continues to refine the clinical pathways for the management of children with blunt abdominal injury, and to provide hospital and follow-up care for children with thermal injuries.

Dr. Jonathan Groner continues to be recognized as an international authority on the ethics of physician participation in judicial executions by lethal injection. He serves as an invited speaker and panelist at numerous national and international conferences on this topic. Dr. Groner continues in his role as medical director of the Trauma Program at Nationwide Children's Hospital. He is a site reviewer for pediatric trauma centers, and a frequent speaker on pediatric trauma.

Dr. Brian Kenney continues as director of the Nationwide Children's Hospital-accredited fellowship in pediatric surgical critical care. He also serves as director of the Chest Wall Center at Nationwide Children's Hospital, where he has developed comprehensive management for children with pectus excavatum and carinatum deformities.

Dr. Denis King serves as medical director of Nutrition Support Services. He was given the Pediatric Surgery Teacher of the Year Award for 2008 by the residents in general surgery, in recognition of his outstanding contributions to their education. This year the Division of Pediatric Surgery honored Dr. King by renaming the annual teaching award as the Denis R. King Pediatric Surgery Teacher of the Year Award.

Dr. Marc Michalsky serves as surgical director of the Center for Healthy Weight and Nutrition at Nationwide Children's Hospital. Under his leadership, the Adolescent Bariatric Surgery Program has matured into one of the busiest in the nation, in terms of clinical volume and participation in research. He was named as a co-investigator on TEEN-LABS, a federally-funded clinical trial to evaluate the health benefits and risks of adolescent bariatric surgery.

Dr. Benedict Nwomeh serves as surgical director of the Center for Pediatric and Adolescent Inflammatory Bowel Disease at Nationwide Children's Hospital. He is pursuing a master of public health degree at Ohio State's College of Public Health and continues his research in the area of surgical education and communication.

Dr. Steven Teich is surgical director of the Neonatal Intensive Care Unit at Nationwide Children's Hospital. He is vice president of the medical staff at Nationwide Children's Hospital and serves on several hospital committees.

In our graduate education programs, Dr. Jennifer Aldrink completed the residency in pediatric surgery this year. In July 2009, she will join the Division of Pediatric Surgery at Ohio State as an assistant professor of surgery and an attending pediatric surgeon at Nationwide Children's Hospital. Dr. Dorothy Rocourt will begin the chief residency in pediatric surgery. Dr. David Skarda, who completed a residency in general surgery and a fellowship in minimally invasive surgery at the University of Minnesota, will begin the residency in pediatric surgery at Nationwide Children's Hospital. Dr. Angela Hanna completed the fellowship in pediatric surgical critical care and will begin a residency in pediatric surgery at the Long Island Jewish Hospital, in Hyde Park, N.Y. Dr. Johanna Askegard-Giesmann completed the trauma/clinical research fellowship at Nationwide Children's Hospital and will begin the fellowship in pediatric surgical critical care. In July 2010, Dr. Helena Crowley, a resident in general surgery at Tufts University, in Boston, Mass., will begin the residency in pediatric surgery at Nationwide Children's Hospital.

The faculty members, residents, and fellows in the Division of Pediatric Surgery maintain essential roles in the educational, research, clinical care, and service missions of the Department of Surgery, The Ohio State University College of Medicine, Nationwide Children's Hospital, and several national professional organizations in pediatric surgery.

Faculty

Donna A. Caniano, M.D.

Professor of Surgery; Chief, Division of Pediatric Surgery; the H. William Clatworthy, Jr. Professor in Pediatric Surgery

B.A.: Vassar College, Poughkeepsie, N.Y., 1972

M.D.: Albany Medical College, Albany, N.Y., 1976

Specialty Training: Albany Medical Center Hospital, Albany, N.Y.; Johns Hopkins University Hospital, Baltimore, Md.; Columbus Children's Hospital, Columbus, Ohio

Appointment: 1985

Specialty Interests: Neonatal gastrointestinal disorders, Hirschsprung's disease

Research Interests: Biomedical ethics



Caniano

Gail E. Besner, M.D.

Professor of Surgery

B.A.: Cornell University, Ithaca, N.Y., 1978

M.D.: University of Cincinnati, Cincinnati, Ohio, 1982

Specialty Training: Brigham and Women's Hospital, Boston, Mass.; Children's Hospital of Buffalo, Buffalo, N.Y.

Appointment: 1991

Specialty Interests: Burns, pediatric laparoscopic surgery

Research Interests: Growth factor involvement in wound healing



Besner

David R. Brigstock, Ph.D.

Associate Professor of Surgery

B.S.: Brunel University, West London, United Kingdom, 1984

Ph.D.: Cambridge University, Cambridge, United Kingdom, 1988

Specialty Training: Harvard University, Cambridge, Mass.

Appointment: 1991

Research Interests: Biology of connective tissue growth factor



Brigstock

Allen F. Browne, M.D.

Associate Professor of Surgery

A.B.: Brown University, Providence, R.I., 1967

M.D.: George Washington School of Medicine, Washington, D.C., 1971

Specialty Training: Cincinnati Children's Hospital, Cincinnati, Ohio; Columbus Children's Hospital, Columbus, Ohio

Appointment: 2008

Research Interests: Bariatric surgery



Browne

Renata B. Fabia, M.D., Ph.D.

Clinical Assistant Professor of Surgery

M.D.: Silesian University School of Medicine, Katowice, Poland, 1985

Ph.D.: Lund University, Lund, Sweden, 1993

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 2003

Specialty Interests: General surgery in children and adolescents; burn and trauma management

Research Interests: Inflammatory bowel disease, trauma



Fabia

Jonathan I. Groner, M.D.

Professor of Clinical Surgery

B.S.: Northwestern University, Evanston, Ill., 1982

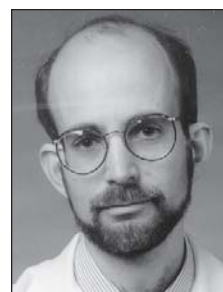
M.D.: Northwestern University, Evanston, Ill., 1984

Specialty Training: Medical College of Wisconsin, Milwaukee, Wis.; Children's Hospital, Columbus, Ohio

Appointment: 1999

Specialty Interests: Trauma, child advocacy

Research Interests: Trauma prevention



Groner

Brian D. Kenney, M.D., M.P.H.

Assistant Professor of Clinical Surgery

B.A.: University of Notre Dame, South Bend, Ind., 1979

M.D.: Medical College of Ohio, Toledo, Ohio, 1983

M.P.H.: Harvard University School of Public Health, Boston, Mass., 1990

Specialty Training: University of Montreal, Montreal, Quebec, Canada

Appointment: 2003

Specialty Interests: Laparoscopy, thoracoscopy, critical care, and thoracic surgery

Research Interests: Clinical epidemiology and outcomes research



Kenney

Marc P. Michalsky, M.D.

Assistant Professor of Clinical Surgery

B.A.: Brandeis University, Waltham, Mass., 1988

M.D.: University of Medicine and Dentistry of New Jersey, Newark, N.J., 1992

Specialty Training: University of Medicine and Dentistry of New Jersey, Newark, N.J.; Columbus Children's Hospital, Columbus, Ohio

Appointment: 2004

Specialty Interests: Minimally invasive surgery, childhood obesity

Research Interests: Childhood obesity, quality performance, surgical outcomes



Michalsky

Benedict C. Nwomeh, M.D.

Assistant Professor of Clinical Surgery

Undergraduate Degree: Faculty of Science, University of Lagos, Lagos, Nigeria, 1981

M.D.: College of Medicine, University of Lagos, Lagos, Nigeria, 1986

Specialty Training: Medical College of Virginia, Virginia Commonwealth University, Richmond, Va.; Children's Hospital of Pittsburgh, Pittsburgh, Pa.

Appointment: 2003

Specialty Interests: Pediatric general surgery, neonatal surgery, pediatric minimally invasive surgery, pediatric thoracic surgery

Research Interests: Surgical education, clinical outcomes



Nwomeh

Emeritus Faculty

E. Thomas Boles, Jr., M.D.

Professor Emeritus of Surgery

B.S.: College of William and Mary, Williamsburg, Va., 1942

M.D.: Harvard University, Cambridge, Mass., 1945

Clinical Faculty

Denis R. King, M.D.

Clinical Associate Professor of Surgery

B.S.: University of Notre Dame, South Bend, Ind., 1965

M.D.: Hahnemann Medical College, Philadelphia, Pa., 1969

Specialty Training: The Ohio State University Hospital; Children's Hospital, Columbus, Ohio

Specialty Interests: Cancer, nutrition

Research Interests: Pediatric oncology

Steven Teich, M.D.

Clinical Assistant Professor of Surgery

B.S., M.S.: Rensselaer Polytechnic Institute, Troy, N.Y., 1976

M.D.: State University of New York at Buffalo, N.Y., 1981

Specialty Training: George Washington University Medical Center, Washington, D.C.; Children's Hospital of Pittsburgh, Pa.

Specialty Interests: Epidermolysis bullosa, burns, laparoscopic surgery

Research Interests: Quality improvement and surgical clinical pathways

Resident Staff

Jennifer H. Aldrink, M.D.

Clinical Instructor and Chief Resident

B.S.: Wake Forest University, Winston-Salem, N.C., 1995

M.D.: East Carolina University School of Medicine, Greenville, N.C., 2000

Johanna R. Askegard-Giesmann, M.D.

Trauma/Clinical Research Fellow

B.A.: University of Minnesota, Minneapolis and St. Paul, Minn., 1999

M.D.: Finch University of Health Sciences/The Chicago Medical School, North Chicago, Ill., 2004

Angela M. Hanna, M.D.

Surgical Critical Care Fellow

B.A.: Virginia Polytechnic Institute and State University, Blacksburg, Va., 1998

M.D.: University of Utah, Salt Lake City, Utah, 2003

Dorothy V. Rocourt, M.D.

Clinical Instructor and Assistant Chief Resident

B.A.: Dartmouth College, Hanover, N.H., 1995

M.D.: University of Medicine and Dentistry of New Jersey, Newark, N.J., 1999

Mission

The Division of Pediatric Surgery, in alignment with Nationwide Children's Hospital, is dedicated to fulfilling the CARES mission: providing the highest quality of care, advocacy for children, child health research, education, and outstanding service.

Research Programs

The Pediatric Surgery Research Laboratory focuses on two major areas of clinical interest. Dr. Besner's laboratory studies heparin-binding EGF-like growth factor (HB-EGF) and its ability to protect the intestines from various forms of injury. These research projects continue to be funded by the National Institutes of Health, as well as by industry, and include:

- Elucidation of the mechanisms by which HB-EGF exerts its protective effects against intestinal injury, including its effects on the vasculature.

- Studies of susceptibility to intestinal injury in HB-EGF transgenic and knockout mice.
- Determination of the signal pathways used by HB-EGF in intestinal cytoprotection.
- Studies of the effects of HB-EGF in established animal models of neonatal necrotizing enterocolitis, hemorrhagic shock and resuscitation, intestinal ischemia/reperfusion injury, intestinal anastomotic wound healing, and cecal ligation and perforation.
- Design of HB-EGF clinical trials in the prevention of necrotizing enterocolitis in preterm infants.

The second area of interest is the role played by connective tissue growth factor (CTGF) in scarring and fibrosis. These studies are led by Dr. Brigstock and focus on the fibrotic properties of CTGF, including novel strategies for antagonizing CTGF action *in vivo*. Current areas of emphasis include:

- Characterization of CTGF receptors and signaling pathways in hepatic or pancreatic stellate cells.
- Production of transgenic mice that overexpress CTGF in the liver.
- Anti-CTGF targeting strategies in the liver and pancreas.

Accomplishments in Research

Gail E. Besner, M.D.

The Besner laboratory made significant accomplishments this year. Dr. Besner currently holds three R01 grants from the National Institutes of Health, as well as funding from a private biotechnology company, to continue her basic science research on heparin-binding EGF-like growth factor (HB-EGF). In conjunction with the biotechnology industry, human-grade HB-EGF has been produced, and an application to the FDA for administration of HB-EGF to humans has been filed. Dr. Besner's research resulted in several publications and was presented at several national meetings this year, with her research fellows winning a number of awards for their presentations.

David R. Brigstock, Ph.D.

Dr. Brigstock continued his NIH-funded studies of the role of connective tissue growth factor (CTGF) in organ fibrosis. A major accomplishment is his receipt of two NIH R01 grants to support his work on CTGF-mediated fibrogenic pathways in the liver and pancreas. His work on CTGF-based antifibrotic therapies was presented at the Fifth International Workshop on the CCN Family of Genes, the 59th Annual Meeting of the American Association for the Study of Liver Diseases, and by invitation, at Experimental Biology 2009.

Active Research Grants

Besner GE. HB-EGF and intestinal ischemia/reperfusion. National Institutes of Health, July 1, 2007 – May 31, 2011, \$1,000,000.

Besner GE. HB-EGF and protection of the intestines from injury. Trillium Therapeutics, Inc., April 15, 2009 – April 14, 2010, \$100,000.

Besner GE. HB-EGF therapy for necrotizing enterocolitis. National Institutes of Health, July 1, 2007 – May 31, 2012, \$1,250,000.

Besner GE. Role of NO and endothelin in human NEC. National Institutes of Health, July 1, 2003 – June 30, 2010, \$1,250,000.

Besner GE (Mentor), **Giannone P** (Principal Investigator). Novel therapeutic targets in necrotizing enterocolitis. National Institutes of Health, February 1, 2008 – January 31, 2013, \$791,215.

Brigstock DR. CTGF in pancreatic stellate cell-mediated fibrogenesis. National Institutes of Health (National Institute on Alcohol Abuse and Alcoholism), September 30, 2007 – August 31, 2012, \$1,125,000.

Brigstock DR. Mechanisms of CTGF-induced liver disease. National Institutes of Health (National Institute on Alcohol Abuse and Alcoholism), April 15, 2007 – March 31, 2012, \$1,125,000.

Michalsky MP. Adolescent bariatrics: assessing health benefits and risks, or the Teen-Longitudinal Assessment of Bariatric Surgery (TEEN-LABS). National Institute of Diabetes and Digestive and Kidney Diseases, April 1, 2008 – March 31, 2012, \$219,738.

Michalsky MP. Adolescent bariatrics: controlled longitudinal study of psychosocial development (TEEN VIEW). National Institute of Diabetes and Digestive and Kidney Diseases, April 1, 2008 – March 31, 2012, \$60,000.

Michalsky MP. Dietary intake and eating behavior in adolescents who undergo bariatric surgery. National Institute of Diabetes and Digestive and Kidney Diseases, October 1, 2008 – September 30, 2013, \$72,856.

Michalsky MP. Laparoscopic adjustable gastric banding (Lap-Band) as a treatment for morbid obesity in adolescents. Allergan Health, May 1, 2006 – April 30, 2011, \$1,203,532.

Michalsky MP. Prediction of outcome of bariatric surgery using the autonomic and enteric nervous systems. Thomas Boles Endowment Fund, October 6, 2008 – October 6, 2013, \$11,600.

Nwomeh BC. Pilot testing of parent communication skills training in elective pediatric surgery. Nationwide Children's Research Institute, October 1, 2008 – January 1, 2009, \$15,000.

Clinical Programs

- Level I pediatric trauma program with American College of Surgeons verification.
- American Burn Association-verified multidisciplinary pediatric burn center.
- Columbus Fetal Medicine Collaborative in conjunction with The Ohio State University Medical Center, Mount Carmel Health System, and OhioHealth.
- Pediatric and adolescent bariatric surgery program.
- Multidisciplinary neonatal and pediatric ECMO program.
- Minimally invasive pediatric surgery program.
- Chest wall center for comprehensive care of chest wall anomalies.

Accomplishments in Clinical Care

- Maturation of outpatient care for children with thermal injuries.
- Maturation of the bariatric surgery program for the treatment of morbidly obese adolescents, and participation in a funded clinical trial using the Lap-Band.
- Development of advanced minimally invasive procedures for thoroscopic and laparoscopic management of congenital and acquired lung and intestinal disorders.
- Listing of Dr. Gail E. Besner, Dr. Donna A. Caniano, Dr. Denis R. King, and Dr. Steven Teich by Best Doctors in America.

Clinical Statistics

OR Procedures	3,961
Outpatient Visits	11,458
Admissions	2,106
Patient Days	10,328
Average Length of Stay (Days)	4.90

Educational Programs

- Two-year residency in pediatric surgery, accredited by the Accreditation Council for Graduate Medical Education. The program accepts one resident per year through the National Residency Match Program. The residency qualifies a candidate for the Certificate of Special Competence in Pediatric Surgery, upon successful completion of the Qualifying and Certifying Examinations in Pediatric Surgery, as given by the American Board of Surgery.
- Fellowship in pediatric surgical critical care, accredited by the Accreditation Council for Graduate Medical Education. The program annually accepts one resident at the PGY-4 level or higher in general surgery. Completion of the fellowship makes a candidate eligible for the Examination in Surgical Critical Care administered by the American Board of Surgery.
- Clinical fellowships in trauma and clinical research and in minimally invasive and adolescent bariatric surgery for senior level residents in general surgery.
- Basic science research fellowships in the Pediatric Surgical Laboratory for residents in accredited programs in general surgery.
- Comprehensive pediatric surgery rotation in the care of infants, children, and adolescents with surgical disease, for junior and senior residents in general surgery from The Ohio State University Medical Center, OhioHealth, and the Mount Carmel Health System.
- Comprehensive pediatric surgery rotation in the care of pediatric patients for interns in the combined Nationwide Children's Hospital-Doctor's Hospital pediatrics residency and for fellows in the pediatric critical care medicine fellowship at Children's Hospital.
- Clinical clerkship in pediatric surgery for third-year medical students at The Ohio State University College of Medicine.
- Subinternship in pediatric surgery for fourth-year medical students at The Ohio State University College of Medicine.

Accomplishments in Education

- Ongoing clinical research in surgical education techniques by Dr. Benedict Nwomeh.
- Ongoing clinical research on optimal communication with parents of pediatric surgical patients by Dr. Benedict Nwomeh.

Community Outreach Programs

- Injury passenger safety program, part of the Nationwide Children's Hospital trauma program, which concentrates on child safety seats and bicycle helmets.
- Quarterly publication of *Surgical Scene* for pediatricians and primary care physicians in the Central Ohio and referral area. Surgical Scene highlights common surgical conditions, their diagnosis, and treatment.
- Regular lectures about pediatric trauma and thermal injury, by physician and nursing members of the Nationwide Children's Hospital trauma program, presented to emergency services personnel in the Central Ohio and referral area.

Accomplishments in Community Outreach

- Distribution of 1,378 bicycle helmets to children in Central Ohio, in cooperation with the Columbus Blue Jacket Foundation.
- Sponsorship of education and information programs on child safety seats throughout the Columbus community.
- Inspection of 304 child safety seats and distribution of 1,378 child safety seats through the trauma program of Nationwide Children's Hospital.
- Injury prevention focused on lawn mower injuries and mower safety.

Publications

Arora A, Caniano D, Hammond S, Besner G. Inversion appendectomy acting as a lead point for intussusception. *Pediatr Surg Int* 2008; 24(11):1261–1264.

Askegard-Giesmann JR, Caniano DA, Kenney BD. Rare but serious complications of central line insertion. *Semin Pediatr Surg* 2009; 18(2):73–83.

Conner KA, Xiang HY, Groner JI, Smith GA. Using data linkage to assess the impact of motorized recreational vehicle-related injuries in Ohio. *J Safety Res* 2008; 39(5):469–475.

Fabia RB, Arthur LG, Phillips A, Galantowicz ME, Caniano DA. Complete bilateral tracheobronchial disruption in a child with blunt chest trauma. *J Trauma* 2009; 66(5):1478–1481.

Groner JI. The Hippocratic paradox: the role of the medical profession in capital punishment in the United States. *Fordham Urban Law Journal* 2008; 35:883–917.

Jadcherla SR, Gupta A, Stoner E, Fernandez S, Caniano D, Rudolph CD. Neuromotor markers of esophageal motility in feeding intolerant infants with gastroschisis. *J Pediatr Gastroenterol Nutr* 2008; 47(2):158–164.

Kibbe MR, Troppmann C, Barnett CC Jr, Nwomeh BC, Olutoye OO, Doria C, Kim RD, Mankani MH, Corbett SA, Biffl WL, Schwarze ML. Effect of educational debt on career and quality of life among academic surgeons. *Ann Surg* 2009; 249(2):342–348.

Mehta VB, Zhou Y, Radulescu A, Besner GE. HB-EGF stimulates eNOS expression and nitric oxide promotion and promotes eNOS dependent angiogenesis. *Growth Factors* 2008; 26(6):301–315.

Nwomeh BC, Hayes J, Caniano DA, Upperman JS, Kelleher KJ. A parental educational intervention to facilitate informed consent for emergency operations in children. *J Surg Res* 2009; 152(2):258–263.

Otabor IA, Abdessalam SF, Erdman SH, Hammond S, Besner GE. Gastric outlet obstruction due to adenocarcinoma in a patient with ataxia-telangiectasia syndrome: a case report and review of the literature. *World J Surg Onc* 2009; 7:29.

Otabor IA, Balint JP, Besner GE. Myectomy-myotomy for long segment Hirschsprung's disease in a patient with Haddad syndrome. *J Pediatr Surg* 2009; 44(3):620–622.

Penfold RB, Chisolm DJ, Nwomeh BC, Kelleher KJ. Geographic disparities in the risk of perforated appendicitis among children in Ohio: 2001–2003. *Int J Health Geogr* 2008; 7:56.

Radulescu A, Zorko NA, Yu XY, Besner GE. Preclinical neonatal rat studies of heparin-binding EGF-like growth factor in protection of the intestines from necrotizing enterocolitis. *Pediatr Res* 2009; 65(4):437–442.

Sandquist MK, Way DP, Patterson AF, Caniano DA, Arnold MW, Nwomeh BC. General surgery versus specialty rotations: a new paradigm in surgery clerkships. *J Surg Res* 2009; 153(1):152–155.

Santanello S, Dean D, Hayes JR, Bonta M, Groner J, Martin L, Sinard J, Shaffer LET, Bechtel N. Perceived value of trauma autopsy among trauma medical directors and coroners. *Injury* 2008; 39(9):1075–1081.

Abstracts

Radulescu A, Yu XY, Chen Y, Besner GE. HB-EGF knockout mice have increased susceptibility to necrotizing enterocolitis. *J Am Coll Surg* 2008; 207(3):S54.

Radulescu A, Yu X, Zorko NA, Orvets ND, Khalfoun SJ, Besner GE. Prophylactic therapy for necrotizing enterocolitis using heparin-binding EGF-like growth factor. *J Surg Res* 2009; 151(2):205.

Zhang H, Radulescu A, Besner GE. HB-EGF is essential for preservation of gut barrier function after hemorrhagic shock and resuscitation in mice. *J Surg Res* 2009; 151(2):246–247.

Chapters

Teich S, Michalsky M. Long-term follow-up protocol of bariatric patients. In: Nguyen N, DeMaria E, Ikramuddin S, Hutter M (eds). *The SAGES Manual of Bariatric Surgery*. New York: Springer Science and Business Media, 2008; 67–73.

Visiting Professorships

Caniano DA. Washington University Department of Surgery and St. Louis Children's Hospital, St. Louis, Mo., March 18, 2009.

Groner JI. Brenner Children's Hospital, Wake Forest University Baptist Medical Center, Winston-Salem, N.C., February 4, 2009.

International Presentations

Brigstock DR. Targeted CTGF gene therapy in experimental liver fibrosis. Fifth International Workshop on the CCN Family of Genes, Toronto, Canada, October 18–22, 2008.

National Presentations

Burger J, Butz C, Fabia R, Besner G, Giles S, Canty H. The application of virtual reality in a multidisciplinary medical setting. Midwest Conference on Pediatric Psychology, Kansas City, Mo., April 2, 2009.

Caniano DA. Ethical issues in pediatric bariatric surgery. Chronic Diseases in Childhood Obesity: Risks and Benefits of Early Intervention Symposium, Columbus, Ohio, April 2–3, 2009.

Caniano DA. The ultra-short-bowel patient: do I resect and refer or do I close? Pediatric Intestinal Failure and Rehabilitation Symposium, Pittsburgh, Pa., September 12, 2008.

Hall M, Nateri J, Groner J, Besner G, Raffel C. Innate immune function and nosocomial sepsis after pediatric critical injury. Society of Critical Care Medicine, Annual Congress, Nashville, Tenn., January 31, 2009.

Krishnaswami S, Bates G, Caniano DA, Foster M, Nwomeh BC. The role of CT scan and ultrasound in omental infarction and epiploic appendagitis in children. Pacific Association of Pediatric Surgeons, 41st Annual Meeting, Jackson, Wyo., June 29 – July 3, 2008.

Lawencia CL, Brigstock DR. Targeted delivery of connective tissue growth factor siRNA to activated hepatic stellate cells resolves experimental liver fibrosis in mice. American Association for the Study of Liver Diseases, 59th Annual Meeting, San Francisco, Calif., October 31 – November 4, 2008.

Lawencia CL, Brigstock DR. Resolution of experimental liver fibrosis in mice by targeted delivery of connective tissue growth factor siRNA. Experimental Biology 2009, New Orleans, La., April 18–22, 2009.

Michalsky MP. Childhood obesity: a risk factor for injuries seen at a Level I Pediatric Trauma Center. American College of Surgeons, San Francisco, Calif., October 10–16, 2008.

Nwomeh BC, Cegala DJ. Communication skills deficits during the preoperative visit. Association for Academic Surgery (Annual Academic Surgical Congress), Education 1: Skills Assessment/Simulation, Fort Myers, Fla., February 4, 2009.

Orvets N, Radulescu A, Khalfoun S, Zorko N, Zhang H-Y, Besner G. HB-EGF knockout mice exposed to experimental necrotizing enterocolitis have increased intestinal permeability. American Medical Association, Medical Student Section Research Poster Symposium, Orlando, Fla., November 7, 2008.

Radulescu A, Yu X, Chen Y, Besner G. HB-EGF knockout mice have increased susceptibility to necrotizing enterocolitis. American College of Surgeons, 94th Annual Clinical Congress, Owen H. Wangensteen Surgical Forum, San Francisco, Calif., October 15, 2008.

Radulescu A, Yu X, Zorko N, Besner G. Preclinical studies of HB-EGF in protection of the intestines from necrotizing enterocolitis. American Academy of Pediatrics, 2008 National Conference and Exhibition, Boston, Mass., October 11, 2008.

Radulescu A, Yu X, Zorko N, Orvets N, Khalfoun S, Besner G. Prophylactic therapy for necrotizing enterocolitis using heparin-binding EGF-like growth factor. Fourth Annual Academic Surgical Congress, Society of University Surgeons, 70th Annual Meeting, Fort Myers, Fla., February 5, 2009.

Rocourt D, Kenney B, Hall M, Fabia R, Groner J, Besner G. Respiratory failure after pediatric scald injury. American Burn Association, 41st Annual Meeting, San Antonio, Texas, March 24–27, 2009.

Yu X, Radulescu A, Besner G. HB-EGF preserves villous microvasculature and structural architecture in rat pups with experimental necrotizing enterocolitis. American Pediatric Surgical Association, 41st Annual Meeting, Las Croabas, Puerto Rico, May 27, 2009.

Yu X, Radulescu A, Besner G. HB-EGF therapy increases villous microcirculatory blood flow in rat pups with experimental necrotizing enterocolitis. American College of Surgeons, 94th Annual Clinical Congress, Owen H. Wangensteen Surgical Forum, San Francisco, Calif., October 15, 2008.

Zhang H-Y, Radulescu A, Besner G. HB-EGF is essential for preservation of gut barrier function after hemorrhagic shock and resuscitation in mice. Fourth Annual Academic Surgical Congress, Society of University Surgeons, 70th Annual Meeting, Fort Myers, Fla., February 5, 2009.

Miscellaneous Presentations

Besner G. Pediatric burns. Nationwide Children's Hospital, Pediatrics Grand Rounds, Columbus, Ohio, July 17, 2008.

Besner G. Shock. Advanced Burn Life Support Course, Columbus, Ohio, September 3, 2008.

Besner G. The systemic inflammatory response syndrome in trauma and burns. Tenth Annual Ohio Pediatric Trauma Symposium, Columbus, Ohio, April 17, 2009.

Caniano D. Abdominal pain: a complex differential diagnosis. Nationwide Children's Hospital, VIP Conference, Columbus, Ohio, April 8, 2009.

Caniano D. The acute abdomen in infants and children. Nationwide Children's Hospital, Pediatrics Grand Rounds, Columbus, Ohio, July 10, 2008.

Caniano D. Ethical considerations in prenatal surgical consultation. Nationwide Children's Hospital, Ethics Conference, Columbus, Ohio, January 29, 2009.

Caniano D. Ethical considerations in prenatal surgical consultation. Nationwide Children's Hospital, Pediatrics Grand Rounds, Columbus, Ohio, December 11, 2008.

Caniano D. Leadership ethics. Nationwide Children's Hospital, Medical Leadership Program, Columbus, Ohio, June 9, 2009.

Caniano D. The power of hope and love: pediatric surgery stories. Nationwide Children's Hospital, Roundup for Children's Miracle Network Telethon, Columbus, Ohio, February 27, 2009.

Caniano D. The power of love and hope: pediatric surgery stories. Financial Advisors Group, Columbus, Ohio, May 21, 2009.

Caniano D. Update in pediatric surgery. Nationwide Children's Hospital, Medical Alumni Day, Columbus, Ohio, September 19, 2008.

Plastic Surgery



Michael J. Miller, M.D.
Chief, Division of Plastic Surgery

The Division of Plastic Surgery has continued to grow in each of its mission areas: clinical care, research, and education.

In clinical care, our guiding principle is to provide services fully integrated into the multidisciplinary environment of the academic medical center, providing readily available reconstructive surgery services to other specialists at University Hospital, the Ross Heart Hospital, the James Cancer Hospital, and Nationwide Children's Hospital. Our surgical volumes, billings, and revenues reached record levels this year. Some cases performed this year had never before been performed at Ohio State, and two cases in particular had never been reported in the world. The first was a total esophageal reconstruction in a teenager with congenital absence of the esophagus, in which the organ was restored using a microvascular surgery to interpose a segment of small bowel. The second was a reconstruction following an external hemipelvectomy, in which vascularized segments of the femur, fibula, and soft tissues from the thigh were preserved and transferred as a composite flap. In addition to advanced techniques for reconstructive surgery, we continue to offer state-of-the-art aesthetic surgery as an essential part of a comprehensive clinical service in plastic surgery.

This year the division appointed two new faculty members and recruited three new faculty for the upcoming year, increasing the number of faculty in the division next year to 12. The new faculty are:

- Dr. James Boehmler, who joined the faculty in August 2008 and serves as our third reconstructive microsurgeon. Dr. Boehmler trained in plastic surgery at Georgetown University, in Washington, D.C., and in reconstructive microsurgery at the University of Texas M.D. Anderson Cancer Center, in Houston, Texas. He has been instrumental in establishing our microsurgery laboratory and has assumed responsibilities for our new fellowship program in reconstructive microsurgery.

- Dr. Brian Janz, who will join us September 1, 2009, after completing his fellowship training at the Curtis Hand Center in Baltimore, the premier hand center in the country. A hand surgeon, Dr. Janz will hold a dual appointment in the Department of Orthopedic Surgery and will participate in the multidisciplinary OSU Hand Surgery Center.
- Dr. Ergun Kocak, who will join the faculty August 1, 2009. Dr. Kocak completed his plastic surgery training at Ohio State and a fellowship in reconstructive microsurgery at the University of Texas M.D. Anderson Cancer Center.
- Dr. Brian Porshinsky, who will join our faculty July 1, 2009, through a joint appointment to the Division of Critical Care, Trauma, and Burn. He will serve as assistant director of The Ohio State University Burn Center.
- Dr. Michael Ruff, who joined our faculty June 1, 2009, through a joint appointment to the Department of Orthopedic Surgery. He serves as director of the OSU Hand Surgery Center, a new multidisciplinary center that has the potential to become a leading provider of clinical services and research in the region.

In order to support the growth in faculty, we have added several important new support staff members. Angie Crespín serves as our new division administrator. We also have a new physician assistant and other support staff in the academic and clinic offices.

We continue to maintain a strong alliance with Nationwide Children's Hospital. We provide general plastic surgery clinical services with nearly all of our full-time faculty members participating, and we conduct two major multidisciplinary clinical programs. The Craniofacial Clinic is staffed primarily by Dr. Gregory Pearson, assisted by Dr. Robert Ruberg. Patient volume continues to grow. Dr. Gayle Gordillo directs the multidisciplinary Vascular Malformations Clinic, which serves as a center for patient care and clinical and basic translational research. We have worked throughout the year to recruit a new chief of pediatric plastic surgery. We are in the final phases of this process and expect success very soon in securing the commitment of an international leader in both clinical care and research in this field.

Mirroring developments in clinical care, our efforts are expanding in clinical, basic, and translational research. Dr. Gordillo is our most active investigator and has received recognition for her ongoing efforts. She has completed gathering the preliminary data needed to submit a very competitive R01 proposal regarding mechanisms of hemangioma formation and control to the National Institutes of Health. She has successfully developed a national chronic wound tissue bank and has made important contributions in wound healing and vascular malformations research. As our clinical program becomes better established, greater energy will be devoted to advancing our research program in biocomputation, regenerative medicine, and clinical science.

Alok Sutradhar, Ph.D., our postdoctoral researcher in advanced technology applications in surgery, has been working on several project areas. Specifically, this year he concentrated his efforts on: (1) measuring skin elasticity and skin thickness of the female breast; (2) developing patient-specific optimal layout of reconstructed craniofacial region subject to constraints using topological optimization methods; (3)

developing a mathematical model to predict successful tissue transfer method based on blood vessel diameter, tissue volume, and oxygen delivery; (4) computer simulations to predict breast augmentation surgeries, i.e., mastopexy and implant reconstruction; and (5) developing a framework designed for an objective assessment score for selection of appropriate type of breast reconstructive surgery. These ongoing projects have resulted in three article submissions and two presentations to be given in July 2009, at the 10th National Congress on Computational Mechanics. One project completed in collaboration with Avner Friedman of the Mathematical Biosciences Institute resulted in a publication in the Proceedings of the National Academy of Sciences. Our goal is to continue to assist Dr. Sutradhar so that he can be promoted to a faculty position in the coming year. Also, we still have plans to recruit a more senior full-time research scientist to serve as our research director.

Another new and exciting addition is the joint appointment of Dr. Michael Ruff, director of the Hand Center. Developing the hand surgery service has been a top priority for the past two years. The new center will be a multidisciplinary service encompassing plastic surgery, orthopedics, occupational therapy, neurophysiology, and radiology. The center will be located at the Gowdy II building and will provide a service to the local and surrounding communities that has been lacking at Ohio State for many years.

Dr. Robert Ruberg retired from clinical practice this year, except for assisting with the Craniofacial Clinic at Nationwide Children's Hospital. However, he has been invaluable to the division in multiple academic and administrative capacities. Dr. Ruberg continues to serve as a leader in University, community, and national organizations, as he begins to complete his clinical career at Ohio State. Dr. Ruberg will officially retire this coming year, but will continue to assist the division, as well as the Department of Surgery and the College of Medicine, in academic matters. In addition, he has agreed to maintain his position at Nationwide Children's Hospital until a replacement can be found. His knowledge and experience are invaluable to the Division of Plastic Surgery.

Dr. Gayle Gordillo has continued to develop her successful research program in wound healing and vascular malformations. She has submitted two major extramural grants and demonstrates consistent progress under the mentorship of Dr. Chandan Sen. Dr. Gordillo continues to provide clinical services and participate in the residency program by monitoring the operative experience of the residents. She is developing a clinical database for the division that will link to the University Medical Center Information Warehouse and the multi-institutional wound-healing database she successfully created for translational research. In addition, Dr. Gordillo completed her dossier and was promoted to associate professor with tenure. We congratulate her on this tremendous accomplishment.

Dr. Gregory Pearson continues a very active practice in general plastic surgery, particularly in facial trauma and pediatric plastic surgery. He will assume all of the plastic surgery cases at Nationwide Children's Hospital upon Dr. Ruberg's retirement, and he will serve well in this position. In addition, his assistance with the residency program is of tremendous help to the director. Dr. Pearson is organizing the Tri-State Craniofacial Meeting, to be held in Columbus in October 2009. In April 2008, Columbus hosted an AO Foundation course, at which Dr. Pearson gained many accolades for his presentation and participation.

Dr. Anne Taylor completed her second year with the Division of Plastic Surgery. The Easton office location has become very successful under her leadership. She serves as director of the Resident Cosmetic Clinic, which continues to be more successful as time goes on. Dr. Taylor represents us on many different committees and society positions in the local and national plastic surgery communities.

Dr. Pankaj Tiwari completed his second year at Ohio State, and he has performed beyond our expectations. His clinical practice volume has grown such that he is at the top of the division. He has been appointed as our faculty liaison for clinical affairs, which has provided him the opportunity to grow in management and leadership skills. He has become the advisor for our web site, which continues to improve. We look forward to a continued strong presence from Dr. Tiwari as one of our microsurgery faculty members.

As mentioned above, Dr. James Boehmler is the newest faculty member in the Division of Plastic Surgery. Dr. Boehmler is our third reconstructive microsurgeon, and his clinical volume continues to grow. He has contributed greatly to the division by establishing our microsurgery laboratory and serving on several committees, including OpTime and Epic, which are crucial roles, as these two systems will be implemented next year.

Dr. William Wallace has worked hard during his two years on the faculty to establish a post-bariatric body contouring program in conjunction with the Division of General and Gastrointestinal Surgery. He has become the second aesthetic surgeon working at our Easton location, in conjunction with Dr. Anne Taylor. Dr. Wallace should continue to grow his clinical practice and undertake more academic responsibilities over the next year.

Under the direction of Dr. Miller as program director, Dr. Pearson as associate program director, and Dr. Ruberg as advisor, the division applied to the Residency Review Committee to change our residency program from an independent to an integrated program. The GME committee voted to approve our plans to create an integrated six-year program. We plan to initiate the new program format in the 2009-2010 academic year. This is an exciting change for our program that should provide additional knowledge and experience to our residents. The change is consistent with changes in training that will be mandated by the ACGME, beginning in 2010. At our in-service examination this year, all of our residents scored very high, and they have continued to be successful. Of our residents completing their training this year, Dr. Laura Figura went into private practice in Erie, Pa.; Dr. Dana Goldberg went into private practice in West Palm Beach, Fla.; and Dr. Nabil Habash began as our first reconstructive microsurgery fellow.

We continue to enhance our communication with the community faculty through social events, a monthly community faculty meeting, a city-wide M&M conference, and the establishment of a local professional society, the Columbus Society of Plastic Surgeons. All of our visiting professors this year spoke at meetings of the Columbus Society of Plastic Surgeons, and this has given exposure to Ohio State and what our faculty members have to offer the community.

Due to the division's overwhelming growth, we relocated our academic offices to the Gowdy II Building in June 2009. We expect to move our clinical office from our Knightsbridge location to Gowdy in July 2009. This expansion is allowing us to provide space for all of our current and incoming faculty and to

expand our research program with a Surgical Simulation Laboratory. In addition, with the opening of the new Outpatient Surgery Center on the first floor of the Gowdy facility, we will be able to serve our patients in a more convenient, state-of-the-art facility.

Our priorities for the upcoming year are to continue as we have in the past. Key areas include continuing to:

- Work toward financial stability.
- Recruit additional faculty in key areas.
- Foster academic development of current faculty.
- Establish more efficient clinical care processes.
- Improve and expand our team of support staff.
- Publicize our unique clinical services.
- Expand our basic and translational research programs in wound healing, biocomputation, regenerative medicine, and clinical science.

Faculty

Michael J. Miller, M.D.

Professor of Surgery; Chief, Division of Plastic Surgery

B.S.: University of Massachusetts, Boston, Mass., 1978

M.D.: University of Massachusetts, Boston, Mass., 1982

Specialty Training: Berkshire Medical Center, Pittsfield, Mass.; Ohio State University Medical Center, Columbus, Ohio; Tulane University, New Orleans, La.

Appointment: 2007

Specialty Interests: Reconstructive surgery for patients deformed by cancer

Research Interests: Tissue repair and regeneration and applications of advanced technology in clinical surgery



Miller

James H. Boehmler, IV, M.D.

Assistant Professor of Surgery

B.A.: University of Chicago, Chicago, Ill., 1997

M.D.: University of Rochester, Rochester, N.Y., 2001

Specialty Training: Plastic surgery, Georgetown University, Washington, D.C., 2007; fellowship in reconstructive microsurgery, University of Texas M.D. Anderson Cancer Center, Houston, Texas, 2008

Appointment: 2008

Specialty Interests: Oncologic reconstructive surgery



Boehmler

Gayle M. Gordillo, M.D.

Associate Professor of Surgery

A.B.: Stanford University, Stanford, Calif., 1984

M.D.: The Ohio State University, Columbus, Ohio, 1990

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1999

Specialty Interests: Burns, complex wounds

Research Interests: Angiogenesis



Gordillo

Gregory D. Pearson, M.D.

Assistant Professor of Clinical Surgery

B.S.: Ohio University, Athens, Ohio, 1994

M.D.: The Ohio State University, Columbus, Ohio, 1998

Specialty Training: Plastic surgery, The Ohio State University, Columbus, Ohio, 2004; Fellowship in craniofacial surgery, Riley Hospital for Children, Indianapolis, Ind., 2005

Appointment: 2005

Specialty Interests: Craniofacial disorders



Pearson

Robert L. Ruberg, M.D.

Professor of Surgery; Senior Vice Chairman for Administrative Affairs, Department of Surgery

B.A.: Haverford College, Haverford, Pa., 1963

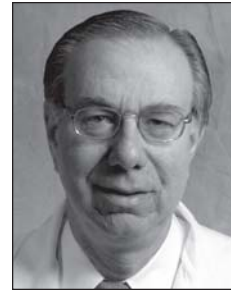
M.D.: Harvard Medical School, Cambridge, Mass., 1967

Specialty Training: Hospital of the University of Pennsylvania, Philadelphia, Pa.

Appointment: 1975

Specialty Interests: Breast surgery, children's plastic surgery

Research Interests: Plastic surgery education, curriculum development



Ruberg

Anne Taylor, M.D.

Clinical Assistant Professor of Surgery

B.S.: Denison University, Granville, Ohio, 1986

M.D.: The Ohio State University, Columbus, Ohio, 1990

Specialty Training: Plastic surgery, The Ohio State University Medical Center, Columbus, Ohio, 1996

Appointment: 2007

Specialty Interests: Aesthetic surgery



Taylor

Pankaj Tiwari, M.D.

Assistant Professor of Surgery

B.A.: Harvard University, Boston, Mass., 1995

M.D.: New York University, New York, N.Y., 2000

Specialty Training: Plastic surgery, Baylor College of Medicine, Houston, Texas, 2006; fellowship in reconstructive microsurgery, M. D. Anderson Cancer Center, Houston, Texas, 2007

Appointment: 2007

Specialty Interests: Aesthetic surgery and reconstructive microsurgery



Tiwari

William A. Wallace, Jr., M.D.

Assistant Professor of Clinical Surgery

B.S.: Oklahoma State University, Oklahoma City, Okla., 1995

M.D.: University of Oklahoma, Norman, Okla., 1999

Specialty Training: Plastic surgery, The Ohio State University Medical Center, Columbus, Ohio, 2007

Appointment: 2007

Specialty Interests: Body contouring



Wallace

Emeritus Faculty

Ronald B. Berggren, M.D.

Professor Emeritus of Surgery

B.A.: Johns Hopkins University, Baltimore, Md., 1953

M.D.: University of Pennsylvania, Philadelphia, Pa., 1957

Clinical Faculty

Haroon A. Aziz, M.D.

Clinical Assistant Professor of Surgery

F.Sc.: Forman Christian College, Lahore, Pakistan, 1965

M.B.B.S.: King Edward Medical College, Lahore, Pakistan, 1970

Arthur G. Bing, M.D.

Clinical Assistant Professor of Surgery

M.D.: Pajaran University, Bandung, Indonesia, 1965

Robert S. Houser, D.O.

Clinical Assistant Professor of Surgery

B.S.: The Ohio State University, Columbus, Ohio, 1993

D.O.: Ohio University, Athens, Ohio, 1997

Jason B. Lichten, M.D.

Clinical Instructor of Surgery

B.A.: Brandeis University, Waltham, Mass., 1993

B.S.: University of Pennsylvania, Philadelphia, Pa., 1994

M.D.: Jefferson Medical College, Philadelphia, Pa., 1998

James D. McMahan, M.D.

Clinical Instructor of Surgery

B.S.: University of Oregon, Eugene, Ore., 1979

M.D.: Oregon Health and Science University, Portland, Ore., 1983

Bivik R. Shah, M.D.

Clinical Assistant Professor of Surgery

B.S.: University of Michigan, East Lansing, Mich., 1989

M.D.: The Ohio State University, Columbus, Ohio, 1994

Timothy A. Treece, M.D.

Clinical Instructor of Surgery

B.S.: The Ohio State University, Columbus, Ohio, 1979

M.D.: The Ohio State University, Columbus, Ohio, 1982

Susan D. Vasko, M.D.

Clinical Instructor of Surgery

B.S.: The Ohio State University, Columbus, Ohio, 1979

M.S.: The Ohio State University, Columbus, Ohio, 1980

M.D.: The Ohio State University, Columbus, Ohio, 1986

Rafael E. Villalobos, D.O.

Clinical Assistant Professor of Surgery

B.S.: University of Maryland, Baltimore, Md., 1985

M.Sc.: University of Maryland, Baltimore, Md., 1987

D.O.: West Virginia School of Osteopathic Medicine, Lewisburg, W.Va., 1991

John K. Wakelin, M.D.

Clinical Instructor of Surgery

B.A.: Xavier University, Cincinnati, Ohio, 1996

M.D.: The Ohio State University, Columbus, Ohio, 2000

Resident Staff

Laura Figura, M.D.

PGY-5

B.S.: The Ohio State University, Columbus, Ohio, 2000

M.D.: The Ohio State University, Columbus, Ohio, 2004

Dana Goldberg, M.D.

PGY-5

B.S.: University of Notre Dame, South Bend, Ind., 2000

M.D.: The Ohio State University, Columbus, Ohio, 2004

Nabil Habash, M.D.

PGY-5

B.S.: Florida State University, Tallahassee, Fla., 1998

M.D.: University of North Carolina, Chapel Hill, N.C., 2003

Kevin Delaney, M.D.

PGY-4

B.A.: Miami University, Oxford, Ohio, 1996

M.D.: Northeastern Ohio Universities College of Medicine, Akron, Ohio, 2002

Stacey Francis, M.D.

PGY-4

B.S.: University of California at Los Angeles, Los Angeles, Calif., 2000

M.D.: The Ohio State University, Columbus, Ohio, 2005

K. Roxanne Grawe, M.D.

PGY-4

B.A.: Southern Methodist University, Dallas, Texas, 2000

M.D.: University of Texas Medical School at Galveston, Galveston, Texas, 2005

Mission and Vision

The mission of the Division of Plastic Surgery at The Ohio State University Medical Center is to restore wholeness to people who suffer from physical deformities, through integrated programs in patient care, education, and research in the field of plastic surgery. Our vision is to become the world's leading center for the practice, training, and advancement of plastic surgery.

Basic Science Research Programs

- Macrophage-derived oxidants promote hemangioma growth. Dr. Gayle Gordillo, Principal Investigator. Mentored Clinical Scientist Award (K08), National Institutes of Health, National Institute of General Medical Sciences, April 1, 2004 – March 31, 2008, \$633,042.

Clinical Research Programs

- A multicenter, randomized, controlled trial examining cellular and tissue oxygenation levels related to various wound healing therapies Dr. Gayle Gordillo, Principal Investigator. KCI USA, Inc., \$124,878.

- A prospective, multicenter, double-blind, randomized, placebo-controlled trial to evaluate the safety and efficacy of ICXP007 in a phase III trial with four-layer therapeutic compression, for the treatment of non-infected skin leg ulcers due to venous insufficiency. Dr. Gayle Gordillo, Principal Investigator. U.S. Food and Drug Administration, Phase III, \$195,304.
- Human tissue distribution of orally-supplemented natural vitamin E tocotrienol detects the presence of tocotrienol in various human tissues. Dr. Gayle Gordillo, Co-Principal Investigator.
- Efficacy of natural vitamin E tocotrienol on the treatment of surgical scars: randomized, double-blinded, placebo-controlled trial designed to assess the qualitative effects of tocotrienol on scar healing outcomes in plastic surgery patients. Dr. Gayle Gordillo, Co-Principal Investigator. Carotech, \$600,000.

Translational Research Programs

- Identification of oxidation-reduction events in response to oxygen therapy. Dr. Gayle Gordillo, Co-Principal Investigator. This study is an ongoing translational research endeavor supported by a contract with GWR Medical, LLC.
- Gene expression profiles in healing and non-healing wounds. Dr. Gayle Gordillo, Principal Investigator. A large, multicenter translational research protocol being implemented at Ohio State and other wound-care centers in the National Healing Corporation network, the project collects wound tissue specimens, medical history, and clinical outcomes data to determine patterns of gene expression in healing versus non-healing wounds. Tissue specimens will be evaluated by histology for quality control and will then proceed to gene chip analysis on single cell populations, using laser capture technology. Data collection and management strategies were incorporated into the protocol, which is approved by the General Clinical Research Center at Ohio State and supports the data collection process.
- Mechanisms regulating wound vascularization. Dr. Gayle Gordillo, Clinical Core Director. A pilot study for the Program Project Initiative Grant to get preliminary data for a planned P50 Center grant submission to the National Institutes of Health, to establish a wound-healing Center of Excellence at Ohio State. A \$400,000 seed grant was provided by the Davis Heart and Lung Research Institute to support the development of this proposal. Dr. Gordillo is the clinical core director, wrote the human subjects protocol, and supervised development of data management tools to support translational needs of four basic science investigators.
- Mechanisms underlying impaired diabetic wound healing. Dr. Gayle Gordillo, Co-Principal Investigator. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, R01, \$1,200,00. This is a translational protocol examining the effects of diabetes on macrophage function in wounds. Macrophages are collected from the wound non-invasively, using VAC sponges, in a protocol developed jointly by Dr. Gordillo and Sashwati Roy, Ph.D.

Accomplishments in Research

- Dr. Gayle Gordillo was an invited speaker at multiple national society meetings and was awarded a new sponsored clinical trial with Sanuwave.
- Dr. Alok Sutradhar made presentations at the 10th National Congress on Computational Mechanics and was co-author of a paper titled “Modeling Oxygen Transport in Surgical Tissue Transfer” published in the July issue of the Proceedings of the National Academy of Sciences.
- Dr. Stacey Francis had her research, titled “Independent Risk Factors for Infection in Tissue Expander Breast Reconstruction,” accepted for presentation at the 52nd Annual Meeting of the Ohio Valley Society of Plastic Surgeons, in Indianapolis, Ind., May 15, 2009.

Active Research Grants

Gordillo GM. Role of macrophages in hemangioendothelioma development. National Institutes of Health, National Institute of General Medical Sciences, April 1, 2004 – March 31, 2009, \$633,043.

Clinical Programs

- Hemangioma and Vascular Malformation Clinic. Established and directed by Dr. Gayle Gordillo, the clinic provides comprehensive care to patients with hemangiomas and vascular malformations.
- Inpatient Wound Consult Service. Established and directed by Dr. Gayle Gordillo, the service provides expertise in the evaluation and management of inpatients with pressure ulcers, venous stasis ulcers, and diabetic foot ulcers. The service sees about 200 patients per year.
- Comprehensive Wound Center (CWC). Recognized by Ohio State’s Board of Trustees in 2004, the center was developed by Dr. Gayle Gordillo and Chandan Sen, Ph.D., to: (1) accelerate the translation of basic science findings to clinical application, (2) encourage novel partnerships and multidisciplinary approaches to investigate complex problems related to wound repair and regeneration, and (3) use data to develop clinical best practices and become a leader in the field of tissue repair and wound management. The objectives and activities of the CWC adhere to guidelines of the NIH Road Map for Medical Research. The CWC was used as a centerpiece in the recently-funded OSU proposal for an NIH Clinical and Translational Science Award of \$35 million.

Accomplishments in Clinical Care

- Growth of the Hemangioma and Vascular Malformation Clinic. The clinic has grown from two to four physician providers and includes two plastic surgeons, a dermatologist, and an otolaryngologist. The clinic has more than 400 patient visits per year.
- Dr. Gayle Gordillo serves as principal investigator or co-principal investigator of three sponsored clinical trials.
- Establishment of a new Hand Center, under the direction of Dr. Michael Ruff, located at Gowdy Field.

Clinical Statistics

OR Procedures	963
Outpatient Visits	2,175
Admissions	372
Patient Days	1,549
Average Length of Stay (Days)	4.12

Educational Programs

- Plastic surgery residency training program.

Accomplishments in Education

- Dr. Gayle Gordillo served as chairman of the Plastic Surgery Educational Foundation Basic Science Grant Review Session, in Beverly Hills, Calif., March 15, 2009.
- Dr. Gayle Gordillo served as a faculty member for the Plastic Surgery Education Foundation Research Grant Writing Workshop, in Pittsburgh, Pa., May 31, 2009.
- Dr. Gayle Gordillo, Dr. Robert Ruberg, and Dr. Anne Taylor served as examiners for the American Board of Plastic Surgery, in Phoenix, Ariz., November 13–14, 2008.
- Dr. Michael Miller attended the Harvard Leadership Course, in Boston, Mass., October 19–31, 2008.

- Dr. Gregory Pearson received the \$5,000 CRANIO (Craniofacial Region Added New Information Opportunity) Fellowship of the American Society of Maxillofacial Surgeons in 2008.

Accomplishments in Community Outreach

- Dr. Michael Miller and Dr. Robert Ruberg were nominees in 2008 for the Business First Health Care Heroes Award.
- A Medical Center press release on immediate breast reconstruction that quoted Dr. Michael Miller was issued June 12, 2009.
- Dr. Michael Miller was interviewed June 10, 2009, by Ohio New Network, about breast reconstruction following mastectomy.
- Dr. Gayle Gordillo served on the panel for the Women in Medicine program at The Ohio State University Medical Center, February 19, 2009.
- Dr. Gayle Gordillo was guest speaker at the March 4, 2009 meeting of the Ohio State University chapter of Alpha Epsilon Delta, the premedical honor society, in Columbus, Ohio.

Publications

Boehmler JH, Butler CE, Ensor J, Kronowitz SJ. Outcomes of various techniques of abdominal closure after TRAM flap breast reconstruction. *Plast Reconstr Surg* 2009; 123(3):773–781.

Boehmler JH, Venturi ML, Nahabedian MY. Decreased narcotic use with an implantable local anesthetic catheter after deep inferior epigastric perforator flap breast reconstruction. *Ann Plast Surg* 2008; 62(6):618–620.

Chang DW, Satterfield WC, Son D, Neto N, Madewell JE, Raymond AK, Patrick CW Jr, Miller MJ, Costelloe CM, Weber KL. Use of vascularized periosteum or bone to improve healing of segmental allografts after tumor resection: an ovine rib model. *Plast Reconstr Surg* 2009; 123(1):71–78.

Gordillo G, Fang H, Khanna S, Harper J, Phillips GS, Sen CK. Oral administration of blueberry inhibits angiogenic tumor growth and enhances survival of mice with endothelial cell neoplasm. *Antioxid Redox Signal* 2009; 11(1):47–58.

Gordillo GM, Roy S, Khanna S, Schlanger R, Khandelwal S, Phillips GS, Sen CK. Topical oxygen therapy induces vascular endothelial growth factor expression and improves closure of clinically presented chronic wounds. *Clin Exp Pharmacol Physiol* 2008; 35(8):957–964.

Gordillo GM, Sen CK. Evidence-based recommendations for the use of topical oxygen therapy in the treatment of lower extremity wounds. *Int J Low Extrem Wounds* 2009; 8(2):105–111.

Heller L, Parker PA, Youssef A, Miller MJ. Interactive digital education aid in breast reconstruction. *Plast Reconstr Surg* 2008; 122(3):717–724.

Kim MS, Sbalchiero JC, Reece GP, Miller MJ, Beahm EK, Markey MK. Assessment of breast aesthetics. *Plast Reconstr Surg* 2008; 121(4):186e–194e.

Liang MI, Ramaswamy B, Patterson CC, McKelvey MT, Gordillo G, Nuovo GJ, Carson WE III. Giant breast tumors: surgical management of phyllodes tumors, potential for reconstructive surgery and a review of literature. *World J Surg Oncol* 2008; 6:117–125.

Roy S, Biswas S, Khanna S, Gordillo GM, Bergdall V, Green J, Marsh CB, Gould LJ, Sen CK. Characterization of a preclinical model of chronic ischemic wound. *Physiol Genomics* 2009; 37:211–224.

Spear SL, Boehmle JH, Bogue DP, Mafi, AA. Options in reconstructing the irradiated breast. *Plast Reconstr Surg* 2008; 122(2):379–388.

Yu P, Chang DW, Miller MJ, Reece G, Ross GL. Analysis of 49 cases of flap compromise in 1310 free flaps for head and neck reconstruction. *Head Neck* 2009; 31(1):45–51.

Books

Sutradhar A, Paulino H, Gray LJ. *Symmetric Galerkin Boundary Element Method*. New York: Springer, 2008.

International Presentations

Miller MJ. Midface reconstruction. Bone tissue engineering: the state of the science. Decision-making and surgical planning for breast reconstruction. Total esophageal reconstruction with supercharged segments of jejunum. Salvaging the unfavorable result in breast reconstruction. Australian Society of Plastic Surgery, Queensland, Australia, October 2–5, 2008.

Miller MJ. Reconstructive surgery in oncology. Tissue engineering and research in plastic surgery. National Congress of Plastic Surgery, Porto, Portugal, October 9–11, 2008.

National Presentations

Gordillo GM. Development of a comprehensive wound center. American Association of Plastic Surgeons, 88th Annual Meeting, Rancho Mirage, Calif., March 24, 2009.

Gordillo GM. Human models for personalized health-care in wound healing. NADPH oxidase regulates monocyte chemoattractant protein-1 expression required for angiogenesis. Wound Healing Society, 19th Annual Meeting, Dallas, Texas, April 28, 2009.

Gordillo GM. Pressure ulcer prevention at The Ohio State University Medical Center: a comprehensive approach. University Health System Consortium, Analyst Café Webcast, April 23, 2009.

Gordillo GM. Pressure ulcer prevention at The Ohio State University Medical Center: a comprehensive approach. University Health System Consortium, Pressure Ulcer Benchmarking Knowledge Transfer Meeting, Oak Brook, Ill., February 13, 2009.

Gordillo GM. Topical oxygen therapy. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 15, 2008.

Miscellaneous Presentations

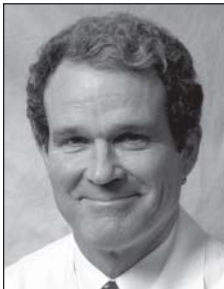
Francis S. Independent risk factors for infection in tissue expander breast reconstruction. Ohio Valley Society of Plastic Surgeons, 52nd Annual Meeting, Indianapolis, Ind., May 15, 2009.

Miller MJ. Appearance: personalizing women's health through menopause and beyond. The Ohio State University, Columbus, Ohio, February 28, 2009.

Miller MJ. Craniomaxillofacial operating room personnel course. AO North America, Cleveland, Ohio, September 6, 2008.

Miller MJ. Microvascular surgery for cancer patients. Columbus Chapter, Oncology Nursing Society, 20th Annual Spring Conference, Columbus, Ohio, April 17, 2009.

Surgical Oncology



William B. Farrar, M.D.
Chief, Division of Surgical Oncology

In The Division of Surgical Oncology, all clinical and basic research activities are devoted to the evaluation and management of cancer. The mission of the division is reflected in the mission of The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute. Our goal is to provide excellence in clinical cancer care; to educate medical students, residents, and fellows; and to conduct clinical and basic research. Most of the research performed in the division is translational, in which ideas and hypotheses from the laboratory are incorporated into clinical evaluation through the clinical trial mechanism.

This year the division recruited two new attending faculty. Dr. William Kraybill joined the division May 1, 2009, following a distinguished career at the Roswell Park Cancer Institute, where he led the melanoma and sarcoma service for more than 17 years. Dr. Kraybill has vast experience in research, as well as the treatment of melanoma and sarcoma. He serves on a number of Radiation Therapy Oncology Group committees, and was recently inducted into the American Surgical Society. Dr. Carl Schmidt, previously a fellow in surgical oncology at Memorial Sloan-Kettering Cancer Center, in New York, N.Y., began an appointment July 1, 2008, as assistant professor of surgery in the division. Dr. Schmidt was active this year in GI oncology and melanoma. He is interested in clinical trial research, and recently completed a course on this topic sponsored by the American Association of Clinical Oncology.

Dr. Doreen Agnese continues to distinguish herself as an excellent clinician, working mainly in breast cancer, melanoma, and cancer genetics. She participates in our High-Risk Breast Cancer Clinic and continues to lead our weekly multi-modality breast meeting. Dr. Agnese has served as a resident mentor for the past three years, and is on the clinical subcommittee of the Center for Women's Health. She recently presented a paper at the annual meeting of the Society of Surgical Oncology, where she dis-

cussed contralateral prophylactic mastectomies. She serves as a reviewer for the European Journal of Surgical Oncology.

Dr. Mark Bloomston continues to lead our GI surgical oncology program. He was recently appointed as director of translational research in liver cancer and also serves as director of the surgical oncology fellowship program. This year, he received the James IV Surgical Association Traveling Fellowship Award. He serves on the biliary cancer guidelines committee of the National Cooperative Cancer Network. A mentor to many residents and medical students, he served as a mentor to Dr. Mary Dillhoff, a general surgery resident who completed the Master of Medical Science Program this year. Dr. Bloomston recently received a National Institutes of Health K12 award for his work titled "Translational Training Grant in Experimental Therapeutics." He continues to make numerous local and national presentations in GI oncology.

Dr. William Carson, a leader in basic research, continues to serve as associate director of the Comprehensive Cancer Center at the James Cancer Hospital. He directs the institutional review board at the James and continues as co-director of the clinical trials office. Dr. Carson has been instrumental in increasing clinical trial activity at the James this year, and through his efforts has made the cancer hospital a leader in clinical trial participation. He holds numerous grants, and recently received an NIH K24 award and an NIH/NCIP01 award. Dr. Carson recently concluded an NIH/NCIR21 award titled "The Therapy of Melanoma and Basismad Interferon-Alpha."

Dr. Edward Martin is an international leader in gastrointestinal cancer and continues to evaluate the detection of recurrent colon cancer. He participates in an R21 grant titled "The Probe-Assisted PET CT-Guided Surgery for Colon Cancer," and received an R01 grant for "The Integrated System for Tumor Detection and Targeting Drug Therapy of Cancer." A prolific author, Dr. Martin has authored more than 200 publications, eight of which were published this year. His research has also resulted in numerous national presentations, and one of his papers has been accepted for presentation next year at the American College of Surgeons Surgical Forum. Dr. Martin continues to be a leader in teaching surgical principles to residents and fellows at the James.

Dr. Stephen Povoski, a leader in breast cancer prevention, continues to serve as director of our High-Risk Breast Cancer Clinic. He is a leader in innovative techniques for the treatment of breast cancer, and has been the principal investigator on our partial radiation therapy program. Dr. Povoski has also been working with the Division of Nuclear Medicine to evaluate near infrared/ultrasound dual mobile imaging for breast cancer. He is a co-investigator on a pilot study evaluating the combined and integrated technologic approach of 18F-FDG-directed perioperative PET/CT imaging and intraoperative hand-held gamma probe detection of neuroendocrine and occult disease in patients undergoing surgery for solid malignancy. Dr. Povoski was appointed principal investigator for the Lymphoseek program. He continues to serve on a number of editorial boards, and was recently named editor of the World Journal of Surgical Oncology.

Dr. Lisa Yee, an excellent clinician and researcher, has a number of translational clinical trials for which she continues to recruit patients. She maintains a very busy practice in breast oncology and

serves as our division liaison with the medical students. She continues her basic research in fatty acids and breast cancer prevention.

Dr. William Farrar is the recipient of the Arthur G. and Mildred C. James and Richard J. Solove chair in surgical oncology. Breast and thyroid cancer continue to be the focus of his clinical and research activities. Dr. Farrar is co-director of the JamesCare Breast Center at Stoneridge, a comprehensive center that makes available all the aspects of the breast cancer diagnosis during one clinic visit, providing mammography, ultrasound, stereotactic breast biopsy, MRI, and outpatient techniques. He recently completed six years of service on the Commission on Cancer of the American College of Surgeons, and he continues as principal investigator at The Ohio State University Medical Center for the National Surgical Breast and Bowel Project. Dr. Farrar serves on the breast treatment, breast cancer prevention, and thyroid cancer guidelines committees of the National Comprehensive Cancer Network. At the James Cancer Hospital, he continues to serve as medical director, and he also serves on the leadership council, which is working toward a major expansion of the James. Dr. Farrar has been listed by Best Doctors in America for seven years.

Dr. Wiley W. "Chip" Souba, Jr. continues to serve as dean of the College of Medicine and vice president for health sciences at The Ohio State University Medical Center.

Dr. Suhail Sharif completed the two-year fellowship in surgical oncology this year and accepted a faculty appointment at the University of North Texas/Plaza Medical Center, in Fort Worth, Texas.

Faculty

William B. Farrar, M.D.

Professor of Surgery; Chief, Division of Surgical Oncology; the Arthur G. and Mildred C. James/Richard J. Solove Chair in Surgical Oncology

B.A.: Illinois Wesleyan University, Bloomington, Ill., 1971

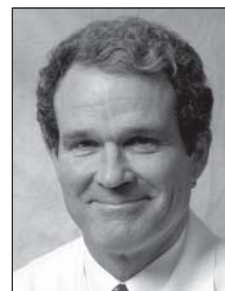
M.D.: University of Virginia, Charlottesville, Va., 1975

Specialty Training: The Ohio State University, Columbus, Ohio; Memorial Sloan-Kettering Cancer Center, New York, N.Y.

Appointment: 1982

Specialty Interests: Breast disease, thyroid disease, head and neck cancer

Research Interests: Breast cancer (high-risk breast cancer clinic, clinical studies for the adjuvant treatment of breast cancer, role of stereotactic biopsy for diagnosis, use of sestamibi in breast cancer diagnosis); thyroid cancer (role of aspiration biopsy and follicular neoplasms, extent of surgery for thyroid cancer); parathyroid disease (localization studies using sestamibi and Neoprobe)



Farrar



Agnese

Doreen M. Agnese, M.D.

Assistant Professor of Surgery and Internal Medicine

M.D.: University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School, Piscataway, N.J., 1993

Specialty Training: General surgery internship and residency, research fellowship, University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School, Piscataway, N.J.; fellowship in surgical oncology and clinical cancer genetics, The Ohio State University, Columbus, Ohio

Appointment: 2004

Specialty and Research Interests: Breast cancer, melanoma, cancer genetics, all aspects of surgical oncology



Bloomston

Mark Bloomston, M.D.

Assistant Professor of Surgery

B.S.: Florida State University, Tallahassee, Fla., 1992

M.D.: University of South Florida, Tampa, Fla., 1997

Specialty Training: Internship, residency, and research fellowship in general surgery, University of South Florida, Tampa, Fla.; fellowship in surgical oncology, Ohio State University Medical Center, Columbus, Ohio

Appointment: 2006

Specialty and Research Interests: Pancreatic and alimentary tract cancers

William E. Carson, III, M.D.

Associate Professor of Surgery

B.S.: University of California, Irvine, Calif., 1982

M.D.: University of Southern California, Los Angeles, Calif., 1986

Specialty Training: University of California, Irvine, Calif.; Roswell Park Cancer Institute, Buffalo, N.Y.

Appointment: 1997

Specialty Interests: Breast cancer

Research Interests: The role of natural killer cells in septic shock



Carson

William G. Kraybill, M.D.

Professor of Surgery

B.A.: Earlham College, Richmond, Ind., 1965

M.D.: University of Cincinnati, Cincinnati, Ohio, 1969

Specialty Training: University of Oregon Health Sciences Center, Portland, Ore.

Appointed: 2008

Specialty Interests: Malignant melanoma and other aggressive skin cancers, soft tissue sarcomas

Research Interests: Clinical trials in tumors, multidisciplinary management of tumors, whole body hyperthermia



Kraybill

Edward W. Martin, Jr., M.D.

Professor of Surgery

B.S.: Ohio University, Athens, Ohio, 1967

M.D.: Meharry Medical College, Nashville, Tenn., 1972

Specialty Training: National Institutes of Health training, The Ohio State University, Columbus, Ohio; American Cancer Society Advanced Fellowship, The Ohio State University, Columbus, Ohio

Appointment: 1977

Specialty Interests: Gastrointestinal malignancies

Research Interests: Radioimmunoguided surgery, tumor markers, biologic response modifiers, liver metastatic model, dormant cancer cells, vaccines



Martin

Stephen P. Povoski, M.D.

Associate Professor of Surgery

B.S.: State University of New York, Buffalo, N.Y., 1985

M.D.: State University of New York Health Science Center, Syracuse, N.Y., 1989

Specialty Training: University of Cincinnati Medical Center, Cincinnati, Ohio; Memorial Sloan-Kettering Cancer Center, New York, N.Y.

Appointment: 2001

Specialty Interests: Breast cancer, breast diseases

Research Interests: Sentinel lymph node mapping and biopsy for breast cancer, image-guided/minimally invasive breast biopsy, high-risk breast cancer clinic, ductal lavage



Povoski

Carl R. Schmidt, M.D., M.S.C.I.

Assistant Professor of Clinical Surgery

B.S.: University of Michigan, Ann Arbor, Mich., 1995

M.D.: University of Michigan, Ann Arbor, Mich., 1999

Specialty Training: General surgery residency, Vanderbilt University Medical Center, Nashville, Tenn.; surgical oncology fellowship, Memorial Sloan-Kettering Cancer Center, New York, N.Y.

Appointment: 2008

Specialty Interests: Gastrointestinal and hepatobiliary malignancies

Research Interests: Novel therapeutic strategies and imaging modalities for metastatic liver tumors



Schmidt

Wiley W. "Chip" Souba, Jr., M.D.

Professor of Surgery; Dean, The Ohio State University College of Medicine; Vice President for Health Sciences, The Ohio State University Medical Center

B.S.: Muskingum College, New Concord, Ohio, 1975

M.D.: University of Texas, Houston, Texas, 1978

Sc.D.: Harvard School of Public Health, Boston, Mass., 1984

M.B.A.: Boston University School of Management, Boston, Mass., 1998

Specialty Training: Residency in surgery, University of Texas, Houston, Texas; fellowship, Brigham and Women's Hospital and the Dana-Farber Cancer Institute, Boston, Mass.; fellowship, University of Texas M.D. Anderson Cancer Center, Houston, Texas

Appointment: 2006

Specialty Interests: Leadership development; the academic medicine environment

Research Interests: Metabolism of glutamine



Souba

Lisa D. Yee, M.D.

Associate Professor of Surgery

B.A.: University of California, San Diego, Calif., 1982**M.D.:** Yale University, New Haven, Conn., 1986**Specialty Training:** Mount Sinai Medical Center, Miami, Fla.**Appointed:** 1996**Specialty Interests:** General surgical oncology**Research Interests:** Tumor progression and metastasis

Yee

Resident Staff

Sherif Abdel-Misih, M.D.

PGY-6

B.A.: Franklin and Marshall College, Lancaster, Pa., 1997**M.D.:** Jefferson Medical College, Philadelphia, Pa., 2003**Suhail Sharif, M.D.**

PGY-7

B.S.: University of Illinois, Chicago, Ill., 1996**M.D.:** University of Guadalajara, San Antonio, Texas, 2000

Mission

The Division of Surgical Oncology is dedicated to the evaluation and management of cancer and to cancer research and education.

Accomplishments in Research

- Faculty members in the division published 36 articles, abstracts, and chapters.

Active Research Grants

Agnese DM. A phase 3, multicenter, randomized trial of sentinel lymphadenectomy and complete lymph node dissection versus sentinel lymphadenectomy alone in cutaneous melanoma patients with molecular or histopathological evidence of metastases in the sentinel node. John Wayne Cancer Institute, June 1, 2006 – May 31, 2010, \$100.

Bloomston M. A phase 3, randomized, double-blind, placebo-controlled study of sorafenib as adjuvant treatment for hepatocellular carcinoma after surgical resection or local ablation. Covance, Inc., January 22, 2009 – December 31, 2013, \$11,607.

Bloomston M. A randomized, phase II trial comparing transarterial chemoembolization (TACE) to selective internal radiotherapy (SIRT) for unresectable carcinoid hepatic metastases. National Institutes of Health, National Cancer Institute, July 1, 2008 – June 30, 2010, \$35,000/year.

Bloomston M. Translational training grant in experimental therapeutics. National Institutes of Health, National Cancer Institute, September 9, 2008 – July 31, 2013, \$122,625/year.

Carson WE III. ADV-TK therapy in combination with surgery and chemoradiation for pancreas cancer. Advantagene, Inc., January 8, 2008 – December 31, 2012, \$17,204.

Carson WE III. Effect of IL-21 on antibody-dependent cellular toxicity mediated by an HER2/neu antibody and NK cell against breast carcinoma cells in vitro and in vivo. Zymogenetics, Inc., April 14, 2004 – July 31, 2009, \$74,600.

Carson WE III. Modulation of tumor CEA levels for an anti-CEA vaccine. National Cancer Institute, May 18, 2005 – April 30, 2009, \$583,587.

Carson WE III. A phase 1, open-label, dose escalation study of ANA773 tosylate, an oral prodrug of a toll-like receptor-7 agonist, in patients with advanced cancer. Anadys Pharmaceuticals, Inc., June 2, 2008 – December 31, 2012, \$21,277.

Carson WE III. A phase 1 study of PS-341 (bortezomib, Velcade) and interferon-alpha-2b in malignant melanoma. Millennium Pharmaceuticals, Inc., February 10, 2005 – March 31, 2010, \$32,100.

Carson WE III. A phase 1 trial of IL-21 in combination with weekly paclitaxel and trastuzumab in patients with HER2-positive malignancies. Mary Kay Ash Charitable Foundation, August 1, 2006 – July 31, 2008, \$100,000.

Carson WE III. A phase 2, multicenter, randomized, double-blind, placebo-controlled trial evaluating the efficacy and safety of bevacizumab in combination with carboplatin and paclitaxel chemotherapy. Genentech, Inc., June 8, 2007 – August 1, 2009, \$7,314.

Carson WE III. A pilot study of IFN-alpha-2b dose-reduction with dose optimization in melanoma. Schering-Plough Corp., March 6, 2008 – December 31, 2011, \$40,000.

Carson WE III. A program of immune-based treatments for cancer. National Cancer Institute, April 1, 2008 – March 31, 2009, \$181,546.

Carson WE III. Therapy of melanoma with bortezomib and interferon-alpha. National Cancer Institute, April 1, 2006 – February 28, 2009, \$4,491.

Carson WE III. Therapy of melanoma with bortezomib and interferon-alpha. National Cancer Institute, April 1, 2006 – February 28, 2009, \$523,031.

Carson WE III. Tumor immunology. National Cancer Institute, June 1, 2008 – May 31, 2013, \$224,780.

Eubank T, Carson WE III, Marsh CB, Ostrowski MC. The mechanisms of GM-CSF inhibition of breast cancer growth and metastasis. National Cancer Institute, September 5, 2008 – August 31, 2010, \$5,241.

Farrar WB. Breast and bowel treatment protocols agreement. National Surgical Adjuvant Breast and Bowel Project Foundation, Inc., February 1, 2006 – January 31, 2010, \$105,415.

Farrar WB. The National Surgical Adjuvant Breast and Bowel Project and STAR trial. National Surgical Adjuvant Breast and Bowel Project Foundation, Inc., June 1, 2007 – May 31, 2009, \$78,250.

Lee RJ, Carson WE III, Guan J, Lee LJ, Marcucci G. Microfluidic synthesis of nanoparticles for oligonucleotide delivery. National Cancer Institute, March 20, 2008 – February 28, 2010, \$9,467.

Lee LJ, Carson WE III, Lee RJ, Marcucci G, Wang S. Novel micro/nanofluidic electroporation devices for DNA and oligonucleotide delivery. National Institute of Biomedical Imaging and Bioengineering, September 30, 2007 – August 31, 2010, \$10,309.

Povoski SP, McKenney RR. A phase 3, prospective, open-label, multicenter comparison study of Lymphoseek and vital blue dye as lymphoid tissue targeting agents in patients with known melanoma or breast cancer who are undergoing lymph node mapping. Neoprobe Corp., December 3, 2008 – June 30, 2010, \$874.

Povoski S, Shapiro CL. A pilot trial of exemestane in combination with celecoxib as neoadjuvant treatment in postmenopausal women with stage II, III, breast cancers. Pharmacia & Upjohn, Inc., June 27, 2003 – November 30, 2008, \$66,500.

Walker MJ. Prospective study of the natural history of subjects who were entered in the MMAIT-03-011 and MMAIT-04-001 trials and underwent postoperative therapy with the BCG plus placebo or BCG plus Canvaxin. John Wayne Cancer Institute, April 1, 2007 – March 31, 2009, \$8,125.

Walker MJ, Agnese D. A phase 3, multi-center, randomized trial of sentinel lymphadenectomy and complete lymph node dissection versus sentinel lymphadenectomy alone in cutaneous melanoma patients with molecular or histopathological evidence of metastases in the sentinel node. John Wayne Cancer Institute, June 1, 2006 – May 31, 2009, \$11,430.

Xu RX, Martin EW Jr, Povoski S, Sun D. Targeted delivery of microbubble encapsulated fluorophores for cancer imaging. Army Medical Research and Materiel Command, September 15, 2007 – September 14, 2008, \$109,320.

Xu RX, Povoski S. Development of an integrated dynamic breast imaging system for the early detection of breast cancer. Wallace H. Coulter Foundation, September 1, 2006 – August 31, 2009, \$228,932.

Yee LD. Dietary fatty acids, macrophages, and HER-2/neu-mediated mammary carcinogenesis. Army Medical Research Acquisition Activity, September 15, 2008 – September 14, 2011, \$450,000.

Yee LD. HER-2/neu and dietary fat: gene-nutrient interactions in breast cancer. National Cancer Institute, August 1, 2005 – July 31, 2008, \$349,791.

Clinical Programs

- Comprehensive surgical oncology service.

Accomplishments in Clinical Care

- Attending faculty in the division performed 1,748 operating room procedures and received 26,105 outpatient visits.

Clinical Statistics

OR Procedures	1,748
Outpatient Visits	26,105
Admissions	781
Patient Days	5,461
Average Length of Stay (Days)	6.79

Educational Programs

- Two-year fellowship in surgical oncology, which includes 18 months of clinical work and six months of basic research.
- Comprehensive rotation in surgical oncology for third- and fourth-year residents in general surgery.
- Subinternship in surgical oncology.

Accomplishments in Education

- Completion of the fellowship in surgical oncology by Dr. Suhail Sharif.

Publications

Agrawal A, Hall NC, Ringel MD, Povoski SP, Martin EW Jr. Combined use of perioperative TSH-stimulated (18)F-FDG PET/CT imaging and gamma probe radioguided surgery to localize and verify resection of iodine scan-negative recurrent thyroid carcinoma. *Laryngoscope* 2008; 118(12):2190–2194.

Andersen BL, Yang HC, Farrar WB, Golden-Kreutz DM, Emery CF, Thornton LM, Young DC, Carson WE 3rd. Psychologic intervention improves survival for breast cancer patients: a randomized clinical trial. *Cancer* 2008; 113(12):3450–3458.

Bahnson EE, Murrey DA Jr, Mojzisik CM, Hall NC, Martinez-Suarez HJ, Knopp MV, Martin EW Jr, Povoski SP, Bahnson RR. PET/CT imaging of clear cell renal cell carcinoma with 124I-labeled chimeric antibody. *Ther Adv Urol* 2009; 1(2):67–70.

Benson AB, Abrams TA, Ben-Josef E, Bloomston PM, Botha JF, Clary BM, Covey A, Curley SA, D'Angelica MI, Davila R, Ensminger WD, Gibbs JF, Laheru D, Malafa MP, Marrero J, Meranze SG, Mulvihill SJ, Park JO, Posey JA, Sachdev J, Salem R, Sigurdson ER, Sofocleous C, Vauthey JN, Venook AP, Goff LW, Yen Y, Zhu AX. NCCN clinical practice guidelines in oncology: hepatobiliary cancers. *J Natl Compr Canc Netw* 2009; 7(4):350–391.

Cohn DE, Hall NC, Povoski SP, Seamon LG, Farrar WB, Martin EW Jr. Novel perioperative imaging with 18F-FDG PET/CT and intraoperative 18F-FDG detection using a handheld gamma probe in recurrent ovarian cancer. *Gynecol Oncol* 2008; 110(2):152–157.

Dillhoff M, Liu J, Frankel W, Croce C, Bloomston M. MicroRNA-21 is overexpressed in pancreatic cancer and a potential predictor of survival. *J Gastrointest Surg* 2008; 12(12):2171–2176.

Dillhoff M, Yates R, Wall K, Muscarella P, Melvin WS, Ellison EC, Bloomston M. Intraoperative assessment of pancreatic neck margin at the time of pancreaticoduodenectomy increases likelihood of margin-negative resection in patients with pancreatic cancer. *J Gastrointest Surg* 2009; 13(5):825–830.

Hall NC, Povoski SP, Murrey DA Jr, Knopp MV, Martin EW. Bringing advanced medical imaging into the operative arena could revolutionize the surgical care of cancer patients. *Expert Rev Med Devices* 2008; 5(6):663–667.

Hampel H, Frankel WL, Martin E, Arnold M, Khanduja K, Kuebler P, Clendenning M, Sotamaa K, Prior T, Westman JA, Panescu J, Fix D, Lockman J, LaJeunesse J, Comeras I, de la Chapelle A. Feasibility of screening for Lynch syndrome among patients with colorectal cancer. *J Clin Oncol* 2008; 26(35):5783–5788.

Horvath JW, Barnett GE, Jimenez RE, Young DC, Povoski SP. Comparison of intraoperative frozen section analysis for sentinel lymph node biopsy during breast cancer surgery for invasive lobular carcinoma and invasive ductal carcinoma. *World J Surg Oncol* 2009; 7(1):34.

Ibarra-Drendall C, Wilke LG, Zalles C, Scott V, Archer LE, Lem S, Yee LD, Lester J, Kulkarni S, Murekeyisoni C, Wood M, Wilson K, Garber J, Gentry C, Stouder A, Broadwater G, Baker JC Jr, Vasilatos SN, Owens E, Rabiner S, Barron AC, Seewaldt VL. Reproducibility of random periareolar fine needle aspiration in a multi-institutional cancer and leukemia (CALGB) cross-sectional study. *Cancer Epidemiol Biomarkers Prev* 2009; 18(5):1379–1385.

Kanies CL, Smith JJ, Kis C, Schmidt C, Levy S, Khabar KS, Morrow J, Deane N, Dixon DA, Beauchamp RD. Oncogenic Ras and transforming growth factor-beta synergistically regulate AU-rich element-containing mRNAs during epithelial to mesenchymal transition. *Mol Cancer Res* 2008; 6(7):1124–1136.

Kenney R, Cheney R, Stull MA, Kraybill W. Soft tissue sarcomas: current management and future directions. *Surg Clin North Am* 2009; 89(1):235–247.

Kondadasula SV, Varker KA, Lesinski GB, Benson DM Jr, Lehman A, Olencki T, Monk JP, Kendra K, Carson WE 3rd. Activation of extracellular signaling regulated kinase in natural killer cells and monocytes following IL-2 immunotherapy: analysis via dual parameter flow-cytometric assay. *Cancer Immunol Immunother* 2008; 57(8):1137–1149.

Lesinski GB, Raig ET, Guenterberg K, Brown L, Go MR, Shah NN, Lewis A, Quimper M, Hade E, Young G, Chaudhury AR, Ladner KJ, Guttridge DC, Bouchard P, Carson WE III. IFN- α and bortezomib overcome Bcl-2 and Mcl-1 overexpression in melanoma cells by stimulating the extrinsic pathway of apoptosis. *Cancer Res* 2008; 68(20):8351–8360.

Liang MI, Carson WE III. Biphasic anaphylactic reaction to blue dye during sentinel lymph node biopsy. *World J Surg Oncol* 2008; 6:79.

Liang MI, Ramaswamy B, Patterson CC, McKelvey MT, Gordillo G, Nuovo GJ, Carson WE III. Giant breast tumors: surgical management of phyllodes tumors, potential for reconstructive surgery and a review of literature. *World J Surg Oncol* 2008; 6:117.

Marsh WL, Colonna J, Yearsley M, Bloomston M, Frankel WL. Calponin is expressed in serous cystadenomas of the pancreas but not in adenocarcinomas or endocrine tumors. *Appl Immunohistochem Mol Morphol* 2009; 17(3):216–219.

Moffatt-Bruce SD, Povoski SP, Sharif S, Hall NC, Ross P Jr, Johnson MA, Martin EW Jr. A novel approach to positron emission tomography in lung cancer. *Ann Thorac Surg* 2008; 86(4):1355–1357.

Pant S, Landon MB, Blumenfeld M, Farrar W, Shapiro CL. Treatment of breast cancer with trastuzumab during pregnancy. *J Clin Oncol* 2008; 26(9):1567–1569.

Pearson AC, Steinberg S, Shah MH, Bloomston M. The complicated management of a patient following transarterial chemoembolization for metastatic carcinoid. *World J Surg Oncol* 2008; 6(1):125.

Povoski SP, Neff RL, Mojzisik CM, O'Malley DM, Hinkle GH, Hall NC, Murrey DA Jr, Knopp MV, Martin EW Jr. A comprehensive overview of radioguided surgery using gamma detection probe technology. *World J Surg Oncol* 2009; 7(1):11.

Povoski SP, Sarikaya I, White WC, Marsh SG, Hall NC, Hinkle GH, Martin EW Jr, Knopp MV. Comprehensive evaluation of occupational radiation exposure to intraoperative and perioperative personnel from 18F-FDG radioguided surgical procedures. *Eur J Nucl Med Mol Imaging* 2008; 35(11):2026–2034.

Raig ET, Jones NB, Varker KA, Benninger K, Go MR, Biber JL, Lesinski GB, Carson WE 3rd. VEGF secretion is inhibited by interferon-alpha in several melanoma cell lines. *J Interferon Cytokine Res* 2008; 28(9):553–561.

Schmidt CR, Panageas K, Coit DG, Patel A, Brady MS. An increased number of sentinel lymph nodes is associated with advanced Breslow depth and lymphovascular invasion in patients with primary melanoma. *Ann Surg Oncol* 2009; 16(4):948–952.

Smith R, Pak Y, Kraybill W, Kane JM 3rd. Factors associated with actual long-term survival following soft tissue sarcoma pulmonary metastasectomy. *Eur J Surg Oncol* 2009; 35(4):356–361.

So BJ, Bekaii-Saab T, Bloomston MA, Patel T. Complete clinical response of metastatic hepatocellular carcinoma to sorafenib in a patient with hemochromatosis: a case report. *J Hematol Oncol* 2008; 1:18.

South CD, Meyer MM, Meis G, Kim EY, Thomas FB, Rikabi AA, Khabiri H, Bloomston M. Yttrium-90 microsphere induced gastrointestinal tract ulceration. *World J Surg Oncol* 2008; 6:93.

Thornton LM, Andersen BL, Carson WE III. Immune, endocrine, and behavioral precursors to breast cancer recurrence: a case-control analysis. *Cancer Immunol Immunother* 2008; 57(10):1471–1481.

Thornton LM, Carson WE III, Shapiro CL, Farrar WB, Andersen BL. Delayed emotional recovery after taxane-based chemotherapy. *Cancer* 2008; 113(3):638–647.

Xu RX, Ewing J, El-Dahdah H, Wang B, Povoski SP. Design and benchtop validation of a handheld integrated dynamic breast imaging system for noninvasive characterization of suspicious breast lesions. *Technol Cancer Res Treat* 2008; 7(6):471–481.

Zimmerer JM, Lesinski GB, Ruppert AS, Radmacher MD, Noble C, Kendra K, Walker MJ, Carson WE 3rd. Gene expression profiling reveals similarities between the in vitro and in vivo responses of immune effector cells to IFN-alpha. *Clin Cancer Res* 2008; 14(18):5900–5906.

Zou P, Xu SB, Povoski SP, Wang A, Johnson MA, Martin EW, Subramaniam V, Xu R, Sun DX. Near-infrared fluorescence-labeled anti-TAG-72 monoclonal antibodies for tumor imaging in colorectal cancer xenograft mice. *Mol Pharm* 2009; 6(2):428–440.

Abstracts

Hall NC, Martin EW, Povoski SP, Murrey DA, Zhang J, Knopp MV. 18F-FDG activity in a surgical specimen correlates with pathology results: potential role in evaluating margins in surgical oncology. *J Nucl Med* 2008; 49(Suppl 1):169.

Jones NB, Kotur L, Wilson J, Stephens J, Agnese DM. Contralateral prophylactic mastectomy for unilateral breast cancer: an increasing trend. *Ann Surg Oncol* 2009; 16(Suppl 1):7.

Sharif S, Johnson M, Murrey D, Povoski S, Abdel-Misih S, Hall N, Knopp M, Martin E. Utilization of preoperative 18F-FDG-guided imaging optimizes surgical resection in patients with advanced malignancy. *Ann Surg Oncol* 2009; 16(Suppl 1):s109.

Sharif S, Murrey D, Johnson M, Povoski S, Schmidt C, Abdel-Misih S, Hall N, Knopp M, Martin E. A quantitative metabolic analysis using 18F-FDG-guided imaging during hepatic resection of metastatic colorectal cancer. *Ann Surg Oncol* 2009; 16(Suppl 1):s71.

Chapters

Povoski SP. Long-term venous access. In: Pazdur R, Wagman LD, Camphausen KA, Hoskins WJ (eds). *Cancer Management: A Multidisciplinary Approach. Medical, Surgical, and Radiation Oncology*. 11th ed. Lawrence, N.Y.: CMP Medical, 2008; 969–980.

International Presentations

Bloomston M. Regional hepatic therapy for metastatic carcinoid. Hospital Beaujon, Surgery Grand Rounds, University of Paris, Clichy, France, June 29, 2009.

Bloomston M. The role of microRNAs in pancreatic cancer. University of Zurich, Surgery Grand Rounds, Zurich, Switzerland, June 11, 2009.

Bloomston M. The surgical and nonsurgical management of neuroendocrine carcinoma. University of Edinburgh, Surgery Grand Rounds, Edinburgh, Scotland, June 3, 2009.

Bloomston M. The surgical and nonsurgical management of neuroendocrine carcinoma. University of Verona, Surgery Grand Rounds, Verona, Italy, June 14, 2009.

National Presentations

Abdel-Misih S, Johnson MA, Carlton M, Povoski SP, Sharif S, Hall NC, Mojzisik C, Knopp M, Martin EW. Image-guided medicine combining F18-FDG PET/CT scanning and surgery in the treatment of patients with multiple types of malignancies. Southwestern Surgical Congress, Annual Meeting, San Diego, Calif., March 23, 2009.

Carson WE III. Interleukin-12 combined with trastuzumab. National Cancer Institute, Translational Science Meeting, Washington, D.C., November 8, 2008.

Carson WE III. Interleukin-21. New York Academy of Sciences, New York, N.Y., March 26, 2009.

Dillhoff M, Liu J, Frankel W, Bloomston M. MicroRNA-21 (Mir-21) is overexpressed in esophageal adenocarcinoma and a potential predictor of progression in Barrett's esophagus. Academic Surgical Congress, Fourth Annual Meeting, Fort Myers, Fla., February 5, 2009.

Dillhoff M, Liu J, Frankel W, Volinia S, Croce C, Bloomston M. Overexpression of micro-RNA 205 is a predictor of poor survival in esophageal adenocarcinoma. Society of Surgical Oncology, 62nd Annual Cancer Symposium, Phoenix, Ariz., March 6, 2009.

Ewing J, Dah HED, Wang B, Xu J, Povoski S, Xu R. Multimodel dynamic imaging of breast cancer. Biomedical Engineering Society, Annual Conference, St. Louis, Mo., October 4, 2008.

Hatzaras I, Muscarella P, Melvin WS, Ellison EC, Bloomston M. Predictors of survival in periampullary cancers following pancreaticoduodenectomy. Society of Surgical Oncology, 62nd Annual Cancer Symposium, Phoenix, Ariz., March 6, 2009.

Hatzaras I, Schmidt CR, Muscarella P, Melvin WS, Ellison EC, Bloomston M. Elevated CA 19-9 portends poor prognosis despite surgical resection of biliary malignancies. American Hepato-Pancreato-Biliary Association, Ninth Annual Meeting, Miami Beach, Fla., March 12, 2009.

Jones NB, Ellison EC, Melvin WS, Muscarella P, Bloomston M. Clinical factors predictive of malignant and premalignant cystic neoplasms of the pancreas. American Hepato-Pancreato-Biliary Association, Ninth Annual Meeting, Miami Beach, Fla., March 12, 2009.

Jones NB, Kotur L, Wilson J, Stephens J, Agnese DM. Contralateral prophylactic mastectomy for unilateral breast cancer: an increasing trend. Society of Surgical Oncology, 62nd Annual Meeting, Phoenix, Ariz., March 6, 2009.

Sharif S, Johnson MA, Murrey DA, Povoski S, Abdel-Misih S, Hall NC, Knopp MV, Martin EW. Perioperative 18F-FDG-guided imaging for optimizing surgical resection in patients with advanced malignancy. Southwestern Surgical Congress, Annual Meeting, San Diego, Calif., March 24, 2009.

Sharif S, Johnson M, Murrey D, Povoski S, Abdel-Misih S, Hall N, Knopp M, Martin E. Utilization of preoperative 18F-FDG-guided imaging optimizes surgical resection in patients with advanced malignancy. Society of Surgical Oncology, 62nd Annual Meeting, Phoenix, Ariz., March 7, 2009.

Sharif S, Klemanski D, Sullivan R, Johnson M, Dillhoff M, Martin EW, Bloomston M. Management of intestinal obstruction in patients with advanced malignancy. Society of Surgical Oncology, 62nd Annual Cancer Symposium, Phoenix, Ariz., March 6, 2009.

Sharif S, Murrey D, Johnson M, Povoski S, Schmidt C, Abdel-Misih S, Hall N, Knopp M, Martin E. A quantitative metabolic analysis using 18F-FDG-guided imaging during hepatic resection of metastatic colorectal cancer. Society of Surgical Oncology, 62nd Annual Meeting, Phoenix, Ariz., March 6, 2009.

Yee LD, Lester JL, Cole RM, Richardson JR, Li Y, Hsu JC, Belury MA, Clinton SK. A dose response study of omega 3 fatty acids in women at high risk for breast cancer. Association for Cancer Research, Annual Meeting, Denver, Colo., April 21, 2009.

Zou P, Xu S, Povoski S, Martin E, Xu R, Sun D. Near-infrared fluorescence-labeled anti-TAG-72 monoclonal antibodies for tumor imaging in colorectal cancer xenograft mice. American Association of Pharmaceutical Scientists, Annual Meeting, Atlanta, Ga., November 19, 2008.

Miscellaneous Presentations

Agnese DM. Assessment and management of women at elevated breast cancer risk. The Ohio State University Medical Center, Women's Health Symposium, Columbus, Ohio, February 28, 2009.

Agnese DM. Case presentations. The Ohio State University Medical Center, Melanoma Symposium, Columbus, Ohio, February 28, 2009.

Agnese DM. Melanoma. The Ohio State University, MedNet21 Continuing Medical Education Program, Columbus, Ohio, October 24, 2008.

Bloomston M. Frankly speaking about colon cancer. The Wellness Community, Columbus, Ohio, September 23, 2008.

Bloomston M. Pancreatic cancer in 2009: a call for novel approaches. Pancreatic Cancer Action Network Fund Raiser, Upper Arlington High School, Columbus, Ohio, April 7, 2009.

Bloomston M. The role of microRNAs in foregut malignancies. The Ohio State University Comprehensive Cancer Center, Scientific Symposium, Columbus, Ohio, February 20, 2009.

Bloomston M. The surgical and non-surgical management of neuroendocrine carcinoma. The Ohio State University Medical Center, Department of Surgery, Grand Rounds, Columbus, Ohio, February 19, 2009.

Carson WE III. Clinical cancer research: history and future. The Ohio State University, Comprehensive Cancer Center, Grand Rounds, Columbus, Ohio, September 19, 2008.

Carson WE III. Clinical research at The Ohio State University Comprehensive Cancer Center. The Ohio State University, Comprehensive Cancer Center, External Scientific Advisory Board, Columbus, Ohio, November 17, 2008.

Dillhoff M, Liu J, Frankel W, Volinia S, Croce C, Bloomston M. Overexpression of micro-RNA 205 is a predictor of poor survival in esophageal adenocarcinoma. American College of Surgeons, Ohio Chapter Meeting, Cleveland, Ohio, March 13, 2009.

Farrar WB. Papillary cancer of thyroid: painful discussion. The Ohio State University Medical Center, Ernest L. Mazzaferri Thyroid Cancer Conference, Columbus, Ohio, November 7, 2008.

Hatzaras I, Schmidt CR, Muscarella P, Melvin WS, Ellison EC, Bloomston M. Elevated CA 19-9 portends poor prognosis despite surgical resection of biliary malignancies. American College of Surgeons, Ohio Chapter Meeting, Cleveland, Ohio, March 13, 2009.

Povoski SP. Breast diseases. Columbus Comprehensive Review, Columbus, Ohio, September 21, 2008.

Transplantation



Mitchell L. Henry, M.D.
Chief, Division of Transplantation

The Division of Transplantation continues to combine a busy clinical transplant program with a diverse and productive research effort. Within the Comprehensive Transplant Center (CTC), the division has embarked on a number of collaborative, interdisciplinary endeavors to enhance both the clinical activities and the basic research efforts in transplantation at The Ohio State University Medical Center. The CTC's team of specialists are pursuing areas of common interest in transplantation, including immunopharmacology, immune assessment and monitoring, immune engineering, information systems, biostatistics, clinical trials, public policy and ethical considerations, and communications and public relations.

Gregg Hadley, Ph.D., professor of surgery, director of the Tissue Typing Laboratory, and deputy director of research in the Comprehensive Transplant Center, continued his research examining transplant rejection and graft-versus-host pathology and the development of strategies for therapeutic intervention in these processes. In other basic science research, Dr. Ginny Bumgardner continued her research in hepatocyte and islet transplant murine models, and Dr. Ronald Pelletier continued his National Institutes of Health-funded work on chronic allograft rejection and immune tolerance.

Clinically, the volume of kidney and pancreas transplantation remains high, buoyed by a strong living-donor program. Under the guidance of Dr. Amer Rajab, the division's initiative for clinical transplantation of islet cells into Type 1 diabetic patients is conducting evaluations of patients for the islet cell transplant waiting list. The division continues to conduct clinical trials examining new and innovative immunosuppressive regimens in the post-transplant patient.

Members of the division faculty continue to participate in national organizations, including the American Society of Transplant Surgeons, the United Network for Organ Sharing, and the Vascular Access Society of the Americas.

In February 2009, Dr. Ronald Ferguson, executive director of the Comprehensive Transplant Center, retired and was appointed professor emeritus of surgery.

In July 2008, Dr. Yusuf Gunay, previously a resident at Ankara Numune Education and Research Hospital, in Ankara, Turkey, and Dr. Srinivas Samavedi, previously a resident in urology at Nizam's Institute of Medical Sciences, in Hyderabad, India, began the fellowship in transplantation. In June 2009, Dr. Khaled Obeidat completed the fellowship in transplantation and began a fellowship in hepatobiliary surgery and surgical oncology at Mount Sinai Medical Center, in New York, N.Y.

Faculty

Mitchell L. Henry, M.D.

Professor of Surgery; Chief, Division of Transplantation; Deputy Director of Surgical Services, Comprehensive Transplant Center

B.S.: University of Nebraska, Lincoln, Neb., 1976

M.D.: University of Nebraska, Omaha, Neb., 1979

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1985

Specialty Interests: Transplantation, immunosuppression

Research Interests: Pancreatic transplantation, xenotransplantation



Henry

Kenneth A. Andreoni, M.D.

Associate Professor of Surgery; Director, Liver Transplantation

B.S.: Georgetown University, Washington, D.C., 1984

M.D.: Yale University, New Haven, Conn., 1988

Specialty Training: Residency in surgery and fellowship in gastrointestinal surgery, Johns Hopkins University Hospital, Baltimore, Md.; fellowship in clinical transplantation, The Ohio State University Medical Center, Columbus, Ohio

Appointment: 2008

Specialty Interests: Liver transplantation

Research Interests: New anti-rejection drugs, antibody-mediated injury to liver, kidney grafts



Andreoni

Ginny L. Bumgardner, M.D., Ph.D.

Professor of Surgery; Associate Dean for Research Education, College of Medicine; Director, Master of Medical Science Program

B.S.: College of William and Mary, Williamsburg, Va., 1979

M.D.: University of Virginia, Charlottesville, Va., 1983

Ph.D.: University of Minnesota, Minneapolis, Minn., 1994

Specialty Training: University of Minnesota, Minneapolis, Minn.; University of California at San Francisco

Appointment: 1993

Specialty Interests: Transplantation, immunosuppression, post-transplant pregnancy, liver disease and transplantation

Research Interests: Transplantation immunology, liver immunobiology, cellular transplantation



Bumgardner

Elizabeth Ann Davies, M.D.

Clinical Assistant Professor of Surgery

B.S.: University of Akron, Akron, Ohio, 1979

M.D.: Northeastern Ohio Universities, Rootstown, Ohio, 1983

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1993

Specialty Interests: Transplantation, immunosuppression

Research Interests: Transplantation, organ procurement



Davies

Elmahdi A. Elkhammas, M.D.

Associate Professor of Clinical Surgery

M.D.: Gar-Younis University, Benghazi, Libya, 1977

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1991

Specialty Interests: Transplantation, immunosuppression

Research Interests: Liver transplantation, urologic complications



Elkhammas

Gregg A. Hadley, Ph.D.

Professor of Surgery; Director, Tissue Typing Laboratory; Deputy

Director of Research, Comprehensive Transplant Center

B.S.: Purdue University, West Lafayette, Ind., 1975

M.S.: University of Iowa, Iowa City, Iowa, 1979

Ph.D.: University of Minnesota, Minneapolis, Minn., 1986

Specialty Training: Washington University School of Medicine, St. Louis, Mo.

Appointment: 2006

Specialty Interests: Transplant immunology

Research Interests: Mechanisms of organ transplant rejection and graft-versus-host disease



Hadley

Ronald P. Pelletier, M.D.

Associate Professor of Surgery; Director, Kidney Transplantation

B.S.: Trinity College, 1979

M.D.: University of Cincinnati, Cincinnati, Ohio, 1987

Specialty Training: The Ohio State University, Columbus, Ohio

Appointment: 1996

Specialty Interests: Pre- and post-transplant immune status monitoring

Research Interests: Pathophysiology of chronic rejection



Pelletier

Amer Rajab, M.D., Ph.D.

Assistant Professor of Surgery; Director, Pancreas and Islet Transplantation

M.D.: Damascus University, Damascus, Syria, 1983

Ph.D.: Lund University, Lund, Sweden, 1991

Specialty Training: University of Texas Southwestern Medical Center, Dallas, Texas

Appointment: 2001

Specialty Interests: Organ transplantation

Research Interests: Islet transplantation



Rajab

Emeritus Faculty

Ronald M. Ferguson, M.D., Ph.D.

Professor Emeritus of Surgery

B.S.: Augsburg College, Minneapolis, Minn., 1967

M.D.: Washington University, St. Louis, Mo., 1971

Ph.D.: University of Minnesota, Minneapolis, Minn., 1982

Fellows

Yusuf Gunay, M.D.

Transplantation Fellow/Clinical Instructor of Surgery

M.D.: Ankara University, Ankara, Turkey, 1999

Khaled A. Obeidat, M.D.

Transplantation Fellow/Clinical Instructor of Surgery

M.D.: Jordan University of Science and Technology, Irbid, Jordan, 1997

Srinivas Samavedi, M.D.

Transplantation Fellow/Clinical Instructor of Surgery

M.D.: Kakatiya Medical College, Warangal, India, 1992

Resident Staff

Tamara Blair, D.O.

PGY-4, Doctors Hospital

D.O.: Des Moines College of Osteopathic Medicine, Des Moines, Iowa, 2005

Naomi Chen, M.D.

PGY-3, Riverside Methodist Hospital

B.S.: The Ohio State University, Columbus, Ohio, 2003

M.D.: The Ohio State University, Columbus, Ohio, 2006

Melissa Kinder, M.D.

PGY-3, Mount Carmel Health System

B.S.: Butler University, Indianapolis, Ind., 2002

M.D.: Southern Illinois University, Chicago, Ill., 2006

Eric Knapp, D.O.

PGY-4, Doctors Hospital

D.O.: Nova Southeastern University, Fort Lauderdale-Davie, Fla., 2005

Juan LeHoux, M.D.

PGY-3, Riverside Methodist Hospital

M.D.: Pontificia Universidad Catolica Madre y Maestra, Santiago, Dominican Republic, 2003

Nicholas Limperos, M.D.

PGY-3, Mount Carmel Health System

B.S.: Mount Union College, Alliance, Ohio, 2002

M.D.: Northeastern Ohio University, Rootstown, Ohio, 2006

Andrew Pearson, D.O.

PGY-4, Doctors Hospital

D.O.: Kansas City College of Osteopathic Medicine, Kansas City, Mo., 2005

Steven Reitz, M.D.

PGY-3, Mount Carmel Health System

B.A.: Albion College, Albion, Mich., 2000

M.D.: Medical University of Ohio, Toledo, Ohio, 2006

Brian Santin, M.D.

PGY-3, Mount Carmel Health System

B.S.: The Ohio State University, Columbus, Ohio, 2002

M.D.: The Ohio State University, Columbus, Ohio, 2006

Mission

The Division of Transplantation is dedicated to building upon a solid foundation of basic, translational, and clinical research in order to define and develop the next generation of high-quality, comprehensive, cost-effective transplant programs.

Research Programs

- Transplant rejection.
- Allograft acceptance and transplant tolerance.
- Novel immunologic strategies for islet cell transplantation.
- Cellular transplantation.
- New immunosuppressive compounds.

Accomplishments in Research

- **Gregg A. Hadley, Ph.D.**, professor of surgery, director of the Tissue Typing Laboratory, and deputy director of research in the Comprehensive Transplant Center, continues his research program on immunologic mechanisms of transplant rejection and graft-versus-host disease pathology, and development of novel strategies for therapeutic intervention in these processes.
- **Investigations Funded by the National Institutes of Health.** Dr. Ronald Pelletier continues the division's NIH-funded investigations into the immunobiology of graft acceptance and the role of alloantibodies in allograft pathobiology. Our recent studies addressing transplantation tolerance suggest that allograft acceptance may evolve through a series of mechanisms involving TGF β and foxP3 regulatory cells. These mechanisms are associated with donor-reactive alloantibodies and pathology within the grafts, and do not lead to true transplantation tolerance, despite the ability to accept donor-matched skin allografts. Our ongoing studies of the role of alloantibodies in transplantation reveal that alloantibodies are not necessarily directed at MHC molecules, but are also directed at tissue-associated and tissue-specific molecules. Using new experimental assays for alloantibody detection, our studies have further revealed that some, but not all, of these antibodies are complement-fixing. Newly-acquired NIH funding for investigational studies focusing on humoral allograft rejection in an animal model are designed to carefully characterize the acute inflammatory events leading to Ab-mediated graft damage. We hope to define stages in the process that offer opportunities for therapeutic intervention to ameliorate graft damage.

- **Translational Research in Immunologic Recognition and Post-Transplant Outcomes.** Dr. Ronald Pelletier continues his translational research (basic, tissue typing, and clinical) investigating the relationship between cellular and humoral donor-specific immunologic recognition and post-transplant outcomes. Efforts are now under way to foster living donor/recipient pair exchanges to enable increasing numbers of patients to obtain a lifesaving kidney transplant. Additionally, methods for removing circulating alloantibodies in sensitized recipients to permit safe organ transplantation continue to be investigated.
- **Transplantation Immunobiology.** Dr. Ginny Bumgardner continues her investigations in transplant immunobiology, using experimental models of pancreatic islet and hepatocyte (liver cell) transplantation. Studies include a research project that focuses on understanding how a novel CD8+ T cell-dependent pathway is activated after transplant, and how its activation and effector function can be suppressed by immunotherapy in primary and sensitized transplant recipients. This pathway is important, because it can cause transplant tissue damage, either early or late after transplant, and interferes with the induction of transplantation tolerance. Dr. Bumgardner's laboratory was the first to report the efficacy of a novel immunosuppressive strategy that successfully suppresses this immunoresistant (CD4-independent) CD8+ T cell-mediated immune pathway and promotes long-term allograft survival. Very little is known regarding how CD8+ T cells cause immune damage of allografts, and *in vivo* effector functions of alloreactive CD8+ T cells are a specific focus for investigation. Our lab is also investigating CD4-dependent humoral immune pathways of allograft damage. It is important to understand the differences in immune mechanisms which damage specific types of cellular or solid organ allografts, since we have previously published that different tissues evoke disparate mechanisms of allograft damage. These and other projects have been funded by external sponsors, such as the American Diabetes Association, the Roche Organ Transplant Research Foundation, the American Society of Transplant Surgeons, the American Society of Transplantation, and the National Institutes of Health.

Active Research Grants

Elkhammas EA, Bumgardner GL, Ferguson RM, Henry ML, Pelletier RP, Rajab A. Conversion from calcineurin inhibitor treatment to sirolimus treatment vs. continued calcineurin inhibitor treatment in liver allograft recipients undergoing maintenance therapy. Wyeth-Ayerst Research, September 19, 2002 – January 31, 2012, \$60,118.

Elkhammas EA, Ferguson RM, Henry ML, Pelletier RP. A facilitated access program to provide everolimus (RAD) for maintenance for patients completing therapy in RAD trials in solid organ transplantation. Novartis Pharmaceuticals Corp., February 17, 2004 – June 30, 2010, \$8,175.

Elkhammas EA, Ferguson RM, Pelletier RP, Henry ML. A facilitated access program to provide everolimus (RAD) for maintenance for patients completing therapy in RAD trials in solid organ transplantation. Novartis Pharmaceuticals Corp., February 17, 2004 – June 30, 2010, \$7,088.

Elkhammas EA, Ferguson RM, Pelletier RP, Henry ML, Bumgardner GL, Rajab A. Conversion from calcineurin inhibitor treatment to sirolimus treatment versus continued calcineurin inhibitor treatment in liver allograft recipients undergoing maintenance therapy. Wyeth-Ayerst Research, September 19, 2002 – January 31, 2012, \$298,260.

Elkhammas EA, Henry ML. Conversion from calcineurin inhibitor treatment to sirolimus treatment vs. continued calcineurin inhibitor treatment in liver allograft recipients undergoing maintenance. Wyeth-Ayerst Research, September 19, 2002 – May 12, 2009, \$5,325.

Ferguson RM. Thymoglobulin antibody immunosuppression in living donor recipients (TAILOR patient registry). Transplant Informatics Institute, April 5, 2005 – October 1, 2008, \$86,000.

Ferguson RM, Bumgardner GL, Henry ML, Nori U, Pelletier RP, Pesavento TE, Rajab A, Von Visger J. A randomized, open-label, multicenter, parallel-group study of belatacept-based corticosteroid-free regimens in renal transplant. Bristol-Myers Squibb Co., June 18, 2007 – May 31, 2009, \$106,830.

Ferguson RM, Henry ML, Pelletier RP, Rajab A. A facilitated access program to provide everolimus (RAD) for maintenance for patients completing therapy in RAD trials in solid organ transplantation. Novartis Pharmaceuticals Corp., February 17, 2004 – June 30, 2010, \$10,923.

Ferguson RM, Henry ML, Pelletier RP, Rajab A. A prospective, randomized, single-center, comparative trial of long-term steroid-free maintenance immunosuppression following steroid withdrawal comparing prednisone-free protocols of C2 dosed Neoral (cyclosporine) and Myfortic (mycophenolic acid) vs. Rapamune. Novartis Pharmaceuticals Corp., October 5, 2004 – December 30, 2008, \$1,195,604.

Ferguson RM, Pelletier RP, Henry ML, Rajab A. A facilitated access program to provide everolimus (RAD) for maintenance for patients completing therapy in RAD trials in solid organ transplantation. Novartis Pharmaceuticals Corp., February 17, 2004 – June 30, 2010, \$14,500.

Hadley GA. Blockade of CS103 as a means to prevent tubular injury following allogeneic renal transplantation. American Society of Transplantation, July 1, 2007 – June 30, 2009, \$80,000.

Hadley GA. Kidney-restricted CTL and allograft rejection. National Institute of Allergy and Infectious Diseases, April 1, 2007 – March 31, 2011, \$321,486.

Hadley GA. Role of CD103 in late loss of pancreatic islet allografts. Roche Organ Transplantation Research Foundation, March 1, 2007 – February 28, 2010, \$52,630.

Horne PH, Bumgardner GL. CD4-independent, CD8+ T cell-mediated alloimmunity studied through a hepatocellular allograft model. American Society of Transplantation, July 1, 2006 – June 30, 2009, \$30,000.

Pelletier RP. Acute humoral rejection of renal allografts. Cleveland Clinic Foundation, July 1, 2007 – June 30, 2012, \$183,938.

Rajab A. Combined effects for improved tissue dissociation (isolation of rat pancreatic islets). EnteraTech, Inc., May 1, 2007 – December 31, 2008, \$3,130.

Rajab A. Thymoglobulin antibody immunosuppression in living donor recipients (TAILOR patient registry). Transplant Informatics Institute, April 5, 2005 – October 1, 2008, \$5,250.

Rajab A, Ferguson RM, Henry ML, Pelletier RP. Rapid four-day steroid withdrawal with thymoglobulin induction and maintenance immunosuppression with sirolimus and mycophenolate in primary cadaveric renal transplantation. Wyeth Pharmaceuticals, Inc., December 1, 2005 – December 1, 2009, \$164,296.

Zimmerer JM, Bumgardner GL, Hadley GA. CD8+ T cell regulation of alloantibody production following transplantation. National Institute of Diabetes and Digestive and Kidney Diseases, May 1, 2009 – April 30, 2011, \$48,826.

Clinical Programs

- Pre-transplant.
- Post-transplant and transplant wellness. The program currently sees more than 2,000 patients.
- Living donor kidney.
- Kidney transplant.
- Liver transplant.
- Pancreas transplant.
- Vascular access.
- Deceased donor.

Accomplishments in Clinical Care

- **Auto-Islet Transplantation.** A milestone in clinical care was achieved when the first auto-islet transplant was performed at Ohio State in November 2008, serving as an innovative treatment modality for pancreatitis. In a collaborative effort between the Division of General and Gastrointestinal Surgery and the Division of Transplantation, Dr. Scott Melvin removed the patient's pancreas, which was

then transported to a specialized islet isolation lab. There, Dr. Rajab and his team processed the pancreas to isolate the islets. The cells were then returned to the operating room, where Dr. Rajab infused them into the patient's liver. There, the cells graft, mimic the function of the removed pancreas, and preserve the patient's ability to secrete insulin. Using the patient's own islet cells eliminates any threat of rejection and substantially reduces the risk of the patient developing diabetes. The patient from the first procedure is doing very well, and another auto-islet transplant was performed in May 2009, which also produced excellent results. There are several candidates being screened for the procedure, and subsequent transplants are planned for the near future.

- **Pediatric Transplant Program.** As director of Pediatric Transplantation, Dr. Rajab this year worked to enhance the transplant program at Nationwide Children's Hospital. Six kidney transplants were performed, and the Midwest Pediatric Nephrology Regional Conference was held in Columbus in March 2009. At the conference, which was attended by nephrologists, surgeons, radiologists, and nurses involved in the care of pediatric patients, and well as many families, Dr. Rajab presented a talk titled "Getting the Right Donor for the Pediatric Renal Transplant Patient: Living and Deceased Donors." In addition, using the expertise gained over many years, Dr. Rajab has implemented successful immunosuppressive regimens in his pediatric patients, and was an author of a paper titled "Steroid Avoidance Using Sirolimus and Cyclosporine in Pediatric Renal Transplantation: One-Year Analysis," which was published in *Pediatric Transplantation*.
- **Living Donor Kidney Transplant Program.** This year, a dedicated effort by the pre-transplant coordinators, the transplant surgeons, and the nephrologists resulted in 101 living donor kidney transplants.
- **Sequential Pancreas Transplant Program.** Continued efforts to focus on a sequential pancreas transplant program resulted in eight of these transplants being performed this year, benefiting the large population of patients who, suffering from end-stage renal disease secondary to diabetes, have already undergone a successful kidney transplant. In addition, 17 combined kidney-pancreas transplants were performed this year, allowing the recipients to be cured of both diseases by a single transplant procedure.

Clinical Statistics

OR Procedures	905
Outpatient Visits	9,940
Admissions	758
Patient Days	5,128
Average Length of Stay (Days)	6.77

Educational Programs

- Two-year fellowship in solid organ transplantation. The program is accredited by the American Society of Transplant Surgeons.
- Rotations for general surgery residents during their intern and PGY-3 years.
- Rotation for surgery residents from the Mount Carmel Hospital System, Riverside Methodist Hospital, and Doctors Hospital. The rotation provides the clinical transplant experience required by the American Board of Surgery.
- Comprehensive Transplant Center Lecture Series. The weekly lecture features broad-based clinical and basic science topics, presented by clinicians and researchers from Ohio State and other institutions.
- Biopsy Conference. The weekly conference reviews renal transplant biopsies and liver transplant biopsies, in conjunction with the pathologists and nephrology physicians.
- Divisional Morbidity and Mortality Conference.
- Observership Program. The one-month international visiting scholar appointment allows international medical students, graduates, and faculty who are not part of a formal training program at The Ohio State University Medical Center to observe faculty members, residents, or interns at Ohio State for a predetermined period of time. The goal is to introduce international visiting scholars to the fields of transplant surgery, patient care, research, and teaching.

Accomplishments in Education

- Dr. Mitchell Henry participated as a faculty member at the Vascular Access Society of the Americas Practicum Course, May 6–9, 2009, in Portland, Ore. The program provided current information regarding the diagnosis, preservation, salvage, and management of vascular access and its complications to the surgeons, interventional nephrologists, radiologists, and ancillary personnel in attendance. Dr. Henry participated in the lecture events, and moderated procedures and didactic sessions.
- The Division of Transplantation was well represented at the 2009 American Transplant Congress, May 30 – June 3, 2009, in Boston, Mass. This joint meeting between the American Society of Transplant Surgeons and the American Society of Transplantation is the foremost educational event in the field of basic and clinical transplantation. At this year's meeting, the division's faculty members chaired plenary sessions and presented orally, and their combined efforts resulted in 18 abstracts being accepted for the event. An additional abstract was accepted from Dr. Gregg Hadley's lab.

- Dr. Mitchell Henry has created learning modules for the organ procurement unit in the national transplant surgery fellowship curriculum currently being developed by the American Society of Transplant Surgeons (ASTS). The curriculum will define the key areas of knowledge necessary for mastery of the field of transplantation surgery, and when complete, this ASTS Academic Universe will contain more than 200 learning modules. Dr. Henry's text addresses the limits of organ preservation and the attendant risk of organ dysfunction over time, as well as the basic principles of pulsatile kidney perfusion. His contributions provide necessary information for trainees as they progress through their fellowship, and will serve as a dynamic reference for ASTS members.
- Dr. Kenneth Andreoni has created a learning module for the organ procurement unit in the national transplant surgery fellowship curriculum. Dr. Andreoni's project addresses public policy and allocation of organs, and discusses the National Organ Transplantation Act and the medical-legal ramifications for transplant professionals.
- Dr. Khaled Obeidat completed the two-year fellowship in solid organ transplantation and accepted a fellowship position in hepatobiliary surgery at Mount Sinai Medical Center, in New York , N.Y.
- Dr. Yusuf Gunay and Dr. Srinivas Samavedi joined the transplant team as the junior fellows in the ASTS-approved fellowship training program.
- The division continues to distribute a CD-ROM for resident education. The CD is continually updated with cutting-edge educational materials on transplantation.
- Progress continues on the video library for resident education. The division's attending faculty members believe that a complete video library in solid organ transplantation will be a valuable teaching tool for those interested in this specialized field.
- Dr. Ginny Bumgardner is a member of the admissions committees for the Medical Scientist Program (MSP), the M.D./Ph.D. dual degree program. She also serves on the MSP Steering Committee, which addresses MSP policies and administrative issues. Dr. Bumgardner is a faculty member for the Integrated Biomedical Sciences Graduate Program.
- Dr. Ginny Bumgardner is associate dean for research education and graduate studies in the College of Medicine. She participates as a member of Ohio State's Center for Clinical and Translational Science (CCTS) Community of Research Education.
- Dr. Ginny Bumgardner is director of the College of Medicine's Master of Medical Science Program.
- Dr. Ginny Bumgardner is the research advisor and mentor for postdoctoral trainee Jason Zimmerer, Ph.D., who this year received a competitive National Institutes of Health F32 research fellowship award; Lori Fiessinger, a premedical undergraduate honors student, who graduated this year from the Biology Honors Program and will be entering medical school at the Cleveland Clinic Lerner College of Medicine; and Leslie King, a medical student who received a Roessler Research Scholarship.

- Jason Zimmerer, Ph.D., presented results of his research project in June at the 2009 American Transplant Congress in Boston, Mass., and he has three manuscripts in review.
- Phillip Horne, Ph.D., who completed his doctoral degree training in Dr. Bumgardner's laboratory, recently graduated after completing eight years in the M.D./Ph.D. dual degree program. Phillip was the first author of four manuscripts (two in the Journal of Immunology, one in Transplantation, one in Cell Transplantation) and co-authored several other manuscripts.
- Dr. Thomas Pham, a PGY-2 surgery resident, will be a clinical postdoctoral research fellow in Dr. Ginny Bumgardner's laboratory and will pursue a master of medical science degree. In June, he attended the 2009 American Transplant Congress, in Boston, Mass., to receive the American Society of Transplant Surgeons-National Kidney Foundation Folkert Belzer Research Award, which will support his research training.

Community Outreach Programs

- **Liver Transplantation.** Dr. Kenneth Andreoni has instituted an outreach program offering lectures on the role of liver transplantation in end-stage liver disease patients, especially those with hepatocellular cancer. This outreach effort is designed to increase awareness of Ohio State's liver transplant program as a treatment modality for these patients. Dr. Andreoni's lectures are helping to educate colleagues in the medical community to identify patients who are appropriate candidates for transplantation. In addition, he is providing information to referring physicians and patients on the UNOS system for liver transplantation.
- **TransChart.** An Internet-based electronic medical record for post-transplant patients and health-care professionals managing their care, TransChart facilitates better communication and patient outcomes. The use of TransChart by outlying nephrologists is increasing, as its browser-based application for reviewing medical records and charting directly into the record is invaluable in managing patient care.

Accomplishments in Community Outreach

Faculty members in the division continue to occupy positions of importance within the community of transplantation professionals. The faculty members and their positions are:

Kenneth A. Andreoni, M.D.

- Vice Chair, Kidney Committee, United Network for Organ Sharing.
- Chair, Subcommittee on National Kidney Paired Donation, United Network for Organ Sharing.
- Co-Chair, Subcommittee on Liver-Kidney Allocation, United Network for Organ Sharing.

- Chair, Kidney Subcommittee Reviewing Scientific Registry of Transplant Recipients Kidney Transplant Metrics, United Network for Organ Sharing.
- Member, Medical Advisory Board, Lifeline of Ohio Organ Procurement.

Ginny L. Bumgardner, M.D., Ph.D.

- Chair, Ad Hoc Work Force Committee, American Society of Transplant Surgeons (ASTS). The committee developed and distributed a survey to transplant surgeons of the ASTS to gather information about their demographics, educational and professional background, clinical activity, and professional productivity. The results of the survey have been submitted for publication.
- Co-Chair, Awards Committee, American Society of Transplant Surgeons (ASTS). The committee develops award guidelines and new awards for consideration by the ASTS Council. The ASTS awards committee annually reviews ASTS research applications and awards approximately \$750,000.
- Associate Editor, Editorial Board, American Journal of Transplantation (AJT). Dr. Bumgardner has been an associate editor for AJT since 2007. AJT has an impact factor of 6.843, which is the highest ranking of transplantation journals.
- Member, Graduate Research Education and Training (GREAT). GREAT is a national organization that fosters the exchange of information and ideas among the faculty and administrative leaders of biomedical Ph.D., M.D.-Ph.D., and postdoctoral programs. GREAT also sponsors annual conferences on issues of importance in research education.
- Member, Allergy, Immunology, and Transplantation Research Committee (AITRC), National Institutes of Health (NIH), National Institute of Allergy and Infectious Diseases. The AITRC is an NIH study section that reviews training grants and individual research fellowship and career development awards.
- Co-Chair, Clinical Center for Translational Science (CCTS) Research Education Resources and Special Programs Committee, The Ohio State University. The committee has organized a CCTS T1 workshop series designed to connect basic scientists and clinicians working in related areas, in order to forge new research collaborations.

Elizabeth Ann Davies, M.D.

- Chair, Education Committee, International Society for Organ Preservation.

Elmahdi A. Elkhammas, M.D.

- Chair, Executive Committee; Deputy Editor, Libyan Journal of Medicine.
- Chair, Board of Directors, Ibnosina Medical Association.
- Member, Executive Committee on Health Reform in Libya.
- Board Member, African Center for the Prevention of Infectious Diseases, Tripoli, Libya.

Gregg A. Hadley, Ph.D.

- Member, Tumor, Transplantation, Tolerance Study Section, National Institutes of Health.
- Member, Scientific Advisory Committee, Roche Organ Transplantation Research Foundation.
- Associate Editor, American Journal of Transplantation.
- Editorial Board, Transplantation.

Mitchell L. Henry, M.D.

- Council Member, American Society of Transplant Surgeons.
- Secretary, Board of Directors, United Network for Organ Sharing.
- President Elect, Vascular Access Society of the Americas.
- Senior Advisor, Vanguard Committee, American Society of Transplant Surgeons.

Ronald P. Pelletier, M.D.

- Member, Board of Directors, National Kidney Foundation. The board works to prevent kidney and urinary tract diseases, improve the health and well-being of individuals and families affected by these diseases, and increase the availability of all organs for transplantation.

Publications

Horne PH, Zimmerer JM, Fisher MG, Lunsford KE, Nadasdy G, Nadasdy T, van Rooijen N, Bumgardner GL. Critical role of effector macrophages in mediating CD4-dependent alloimmune injury of transplanted liver parenchymal cells. *J Immunol* 2008; 181(2):1224–1231.

Henry ML. AV grafts: do new materials and methods offer better results? *J Vasc Access* 2008; (9):186–187.

Henry ML. Subclavian vein angioplasty: a good solution that buys time vs. so bad it should rarely be done. *J Vasc Access* 2008; (9):208–209.

Bickerstaff A, Pelletier R, Wang J-J, Nadasdy G, DiPaola N, Orosz C, Satoskar A, Hadley G, Nadasdy T. An experimental model of acute humoral rejection of renal allografts associated with concomitant cellular rejection. *Am J Pathol* 2008; 173(2):347–357.

Rees MA, Kopke JE, Pelletier RP, Segev DL, Rutter ME, Fabrega AJ, Rogers J, Pankewycz OG, Hiller J, Roth AE, Sandholm T, Unver MU, Montgomery RA. A nonsimultaneous, extended, altruistic-donor chain. *N Engl J Med* 2009; 360(11):1096–1101.

Singh HK, Andreoni KA, Madden V, True K, Detwiler R, Weck K, Nickeleit V. Presence of urinary Haufen accurately predicts polyomavirus nephropathy. *J Am Soc Nephrol* 2009; 20(2):416–427.

Visiting Professorships

Henry ML. Transplant potpourri. The George Washington University Medical Center, Washington, D.C., March 4, 2009.

International Presentations

Elkhammas EA. Kidney-pancreas transplantation. Libyan Diabetes and Endocrinology Association, Tripoli, Libya, April 7–9, 2009.

Henry ML. Immunosuppressive protocols. Wyeth Global Renal Advisory Board, London, England, January 30–31, 2009.

National Presentations

Andreoni KA. Development of a national kidney paired donation pilot program. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Andreoni KA. Liver allograft recipients with positive pre-transplant crossmatch require early follow-up to evaluate for developing antibody-mediated rejection (AMR). American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Andreoni KA. The outcome of simultaneous pancreas-kidney transplantation from older donors. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Andreoni KA. Rapid Steroid Discontinuation Center. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Bickerstaff AA, Wang JJ, Pelletier RP, Nadasdy G, Rearick A, DiPaola N, Brodsky S, Nadasdy T, Hadley GA. Role of T cells in promoting rejection of renal allografts during mixed antibody-mediated rejection. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Brodsky SV, Pelletier RP, Nadasdy G, Satoskar A, Hadley GA, DiPaola N, Nadasdy T. Expression of the decay accelerating factor (CD55) in renal transplants: a positive prediction marker of allograft survival. American Transplant Congress, Boston, Mass., May 30 – June 3, 2009.

Bumgardner GL. Monitoring EBV infection among zero mismatch adult renal transplant recipients. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Bumgardner GL. The murine liver immune environment promotes potent alloreactive CD8+ T cell activation and effector function. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Elkhammas EA. Steroid avoidance in liver transplantation: a single-center experience. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Henry ML. AV grafts: do new materials and methods offer better results? Controversies in Dialysis Access, Washington, D.C., October 20, 2008.

Henry ML. Board of directors session. Organ Procurement and Transplantation Network/United Network for Organ Sharing Meeting, Houston, Texas, March 2–3, 2009.

Henry ML. Board of directors session. Organ Procurement and Transplantation Network/United Network for Organ Sharing Meeting, Richmond, Va., June 22–23, 2009.

Henry ML. Case studies: stents, covered stents, and other catheter techniques for treating AV access stenosis. Controversies in Dialysis Access, Washington, D.C., October 20, 2008.

Henry ML. Case studies: thrombosed AV grafts and fistulae. Controversies in Dialysis Access, Washington, D.C., October 21, 2008.

Henry ML. Debate: basilic vein transposition: one-stage basilic vein transposition is best. Veith Symposium, New York, N.Y., November 19, 2008.

Henry ML. Debate: that's life: LYFT should be used in kidney allocation. American Society of Transplant Surgeons, Annual State of the Art Winter Symposium, Marco Island, Fla., January 18, 2009.

Henry ML. The future is learning from the past. American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 15, 2008.

Henry ML. Immunosuppressive protocols. Wyeth U.S. Renal Transplantation Advisory Board, Atlanta, Ga., May 12, 2009.

Henry ML. Immunosuppressive protocols. Wyeth U.S. Renal Transplantation Advisory Board, San Diego, Calif., May 18, 2009.

Henry ML. Pro-con debate: subclavian vein angioplasty: a good solution that buys time vs. so bad it should rarely be done. Controversies in Dialysis Access, Washington, D.C., October 21, 2008.

Henry ML. Revise study. Data Safety Monitoring Board, W. L. Gore, Philadelphia, Pa., January 9, 2009.

Henry ML. Venous transpositions. Surgical management of complications. Moderator: live surgery and didactic sessions. Vascular Access Society of the Americas Symposium, Portland, Ore., May 6–9, 2009.

Pelletier RP. Comparison of Luminex-based crossmatch (LXM) and flow cytometric crossmatch (FXM) results in kidney transplantation. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Pelletier RP. The Luminex anti-donor HLA class II crossmatch identifies recipients. American Transplant Congress, Boston, Mass., May 31 – June 3, 2009.

Rajab A. Effectiveness of exenatide as a potent anti-rejection therapy for islet cell allotransplantation in the non-human primate. American Transplant Congress, Boston, Mass., June 2, 2009.

Rajab A. Long-term outcome of steroid-free maintenance immunosuppression with sirolimus and low-dose cyclosporine in kidney transplantation. American Transplant Congress, Boston, Mass., May 31, 2009.

Rajab A. The outcome of simultaneous pancreas-kidney transplantation from older donors. American Transplant Congress, Boston, Mass., May 31, 2009.

Rajab A. A prospective study of steroid-free, calcineurin inhibitor-free maintenance immunosuppression based on Rapamune/Myfortic in kidney transplantation. American Transplant Congress, Boston, Mass., May 31, 2009.

Rajab A. The safety and efficacy of hand-assisted laparoscopic donor nephrectomy. American Transplant Congress, Boston, Mass., May 30, 2009.

Miscellaneous Presentations

Andreoni KA. Liver function and care post-transplantation. The Ohio State University Medical Center, Transplant Coordinators In-service, Department of Surgery, Columbus, Ohio, June 19, 2009.

Andreoni KA. Liver transplantation: understanding the options in hepatocellular carcinoma. The Ohio State University Medical Center, Department of Surgery, Grand Rounds, Columbus, Ohio, October 9, 2008.

Andreoni KA. Liver transplantation: who needs it and who benefits from it? The Ohio State University Medical Center, Department of Medicine, Grand Rounds, Columbus, Ohio, March 26, 2009.

Andreoni KA. Liver transplantation for HCC. The Ohio State University Comprehensive Cancer Center, the James Cancer Hospital and Solove Research Institute, Liver Cancer 2009: Update on the Evaluation and Management of Hepatocellular Cancer, Columbus, Ohio, April 25, 2009.

Andreoni KA. Who should be considered for liver transplantation and current options for hepatocellular carcinoma. Smith Clinic, Grand Rounds, Marion, Ohio, May 21, 2009.

Davies EA. Organ donor management. Lifeline of Ohio Organ Procurement, Mini-Module 2009, Columbus, Ohio, April 21, 2009.

Henry ML (Discussant). MIS approach for liver donors. The Ohio State University Medical Center, Ohio State University-University of Michigan Debate, Advanced Concepts in Surgery, Columbus, Ohio, November 21, 2008.

Pelletier RP. The natural history of AMR. Great Lakes Transplant Immunology Forum, Columbus, Ohio, September 18, 2008.

Pelletier RP. Overview of humoral immunity: what's so funny about peace, love and understanding (of humoral immunity)? Comprehensive Transplant Center Seminar, Columbus, Ohio, January 14, 2009.

Rajab A. Getting the right donor for the renal transplant patient: living and deceased donors. Comprehensive Transplant Center Seminar, Columbus, Ohio, May 27, 2009.

Rajab A. Getting the right donor for the pediatric renal transplant patient: living and deceased donors. Nationwide Children's Hospital, 2009 Midwest Pediatric Nephrology Regional Conference, Columbus, Ohio, March 12, 2009.

Rajab A. Islet transplant in non-human primates. Great Lakes Transplant Immunology Forum, Columbus, Ohio, September 18, 2008.

Vascular Diseases and Surgery



Patrick S. Vaccaro, M.D.

Chief, Division of Vascular Diseases and Surgery

Several exciting changes occurred in the Division of Vascular Diseases and Surgery this year. Dr. Michael Go became our youngest associate in July 2008. Michael did his general surgical training at The Ohio State University Medical Center and a two-year vascular fellowship at the University of Pittsburgh. He has brought new endovascular skills and unbridled enthusiasm to our division, and has rapidly become one of our busiest clinical surgeons. He has embarked on several basic science research projects, working on stem cell therapy for advanced chronic limb ischemia, in collaboration with Dr. Vincent Pompili, professor of cardiovascular medicine. A second exciting change is the recruitment of Cameron Rink, Ph.D., to our basic science program, whose appointment will begin July 1. He will fill the position vacated by Dr. Pedram Ghafourifar, who resigned his appointment last year. One of Dr. Rink's areas of interest is the therapeutic role provided by supplemental oxygen in wound healing, particularly in a canine stroke model.

Our clinical volumes remain high, as does our level of patient satisfaction. Dr. Jean Starr continues to expand our endovascular program, and has added two clinical trials to our repertoire: the Abbott Vascular Hercules renal stent trial, and the Boston Scientific Orion iliac stent trial. She has been active in enrolling patients in the Rheos trial for the treatment of refractory hypertension.

Dr. Smead continues to perform a high volume of open vascular procedures, and he also treats patients with venous disease. This year, he was included on the list compiled by Best Doctors, Inc. He receives high praise from the residents for his teaching.

Dr. Blair Vermilion continues to expand our care of patients with venous disease, while remaining involved in quality issues concerning the division, the department, and Ohio State's Medical Center. In August 2008, he received the Surgeon of the Month Award from the Richard M. Ross Heart Hospital. He is an effective teacher, and receives high praise from the resident staff.

Dr. Mohan Das continues to increase our penetration into University Hospital East, and he has made great headway. He receives excellent evaluations of his teaching from the resident staff.

Dr. Bhagwan Satiani continues to conduct his seminar in practice management and to direct the noninvasive vascular lab. In November 2008, he conducted a noninvasive testing symposium that was attended by more than 50 physicians and technicians and received excellent evaluations. He gave several presentations this year on the physician shortage in the United States, including a presentation at the annual meeting of the American Surgical Association.

Dr. Patrick Vaccaro was recently appointed chair of the American College of Surgeons Ohio District #3 Committee on Applicants, and he was voted chief of staff-elect of The Ohio State University Medical Center, effective July 1, 2009. In October 2008, the Accreditation Council for Graduate Medical Education approved the vascular fellowship program for three more years.

Dr. Richard Fries completed the two-year fellowship in vascular surgery this year and joined a private practice group in Cincinnati, Ohio.

On June 1, 2009, Margaret "Peg" Kuhn, one of our most senior nurses and PCRM's, retired. Peg's shoes will be extremely difficult to fill. She has been devoted to her patients and to the physicians with whom she worked, and she always maintained a positive, cheery attitude. She will be greatly missed.

Faculty

Patrick S. Vaccaro, M.D.

Professor of Clinical Surgery; Chief, Division of Vascular Diseases and Surgery; Program Director, Vascular Diseases and Surgery

B.S.: Yale University, New Haven, Conn., 1971

M.D.: University of Cincinnati, Cincinnati, Ohio, 1975

Specialty Training: General surgery residency, The Ohio State University, Columbus, Ohio; clinical fellowship in cardiothoracic surgery, Baylor College of Medicine, Houston, Texas

Appointment: 2004

Specialty Interests: General vascular surgery, endovascular therapy

Research Interests: Endothelial cell biology, spinal cord ischemia, clinical trials



Vaccaro

B. Mohan Das, M.D.

Assistant Professor of Clinical Surgery

B.A.: Madras Christian College, Madras, India, 1967

M.D.: Stanley Medical College, Madras, India, 1974

Specialty Training: General surgery residency and vascular surgery fellowship, Albert Einstein Medical Center, Philadelphia, Pa.; vascular surgery fellowship, Cleveland Clinic, Cleveland, Ohio

Appointment: 2004

Specialty Interests: General vascular surgery, carotid disease, lower extremity and dialysis access surgery

Research Interests: Clinical trials



Das

Michael R. Go, M.D.

Assistant Professor of Surgery

B.S.: Duke University, Durham, N.C., 1996

M.D.: University of Cincinnati, Cincinnati, Ohio, 2000

M.S.: The Ohio State University, Columbus, Ohio, 2005

Specialty Training: General surgery internship and residency, The Ohio State University, Columbus, Ohio, 2006; Vascular and endovascular surgery fellowship, University of Pittsburgh Medical Center, Pittsburgh, Pa., 2008

Appointment: 2008

Specialty Interests: General vascular surgery, endovascular surgery

Research Interests: Endovascular surgery, stem cell therapy for limb ischemia



Go

Bhagwan Satiani, M.D., M.B.A.

Professor of Clinical Surgery; Director of Non-Invasive Vascular Services

Undergraduate Degree: Shah Abdul Latif College, Mirpurkhas, Pakistan, 1964

M.D.: Dow Medical College, University of Karachi, Karachi, Pakistan, 1971

M.B.A.: Franklin University, Columbus, Ohio, 2002

Specialty Training: General surgery residency and trauma fellowship, Emory University, Atlanta, Ga.; vascular surgery fellowship, The Ohio State University Medical Center, Columbus, Ohio

Appointment: 2004

Specialty Interests: Noninvasive vascular diagnosis, business and legal aspects of medicine

Research Interests: Business education for physicians



Satiani

William L. Smead, M.D.

The Luther M. Keith Professor of Surgery

B.A.: Amherst College, Amherst, Mass., 1968

M.D.: Vanderbilt University, Nashville, Tenn., 1972

Specialty Training: Massachusetts General Hospital, Boston, Mass.; Southampton Chest Hospital, Southampton, England

Appointment: 1978

Specialty Interests: General vascular surgery, aortic aneurysmal disease (thoracic and abdominal), renovascular hypertension, carotid disease, pediatric vascular problems

Research Interests: Claudication, carotid disease, thoracic outlet syndrome, aortic aneurysmal disease



Smead

Jean E. Starr, M.D.

Assistant Professor of Clinical Surgery; Director of Endovascular Services

B.S.: The Ohio State University, Columbus, Ohio, 1985

M.D.: The Ohio State University, Columbus, Ohio, 1989

Specialty Training: General surgery residency and vascular surgery fellowship, Cleveland Clinic, Cleveland, Ohio

Appointment: 2004

Specialty Interests: Endovascular surgery, interventional procedures, carotid stents

Research Interests: Endovascular aortic aneurysm repair, carotid stenting



Starr

Blair D. Vermilion, M.D.

Associate Professor of Clinical Surgery

B.S.: Miami University, Oxford, Ohio, 1968**M.D.:** The Ohio State University, Columbus, Ohio, 1972**Specialty Training:** General surgery residency, Indiana University, Indianapolis, Ind.; vascular surgery fellowship, St. Anthony Hospital, Columbus, Ohio**Appointment:** 2004**Specialty Interests:** General vascular surgery, venous disease**Research Interests:** Clinical trials

Vermilion

Resident Staff

Siddharth Bhende, M.D.

PGY-6

B.S.: University of California at Riverside, Riverside, Calif., 1999**M.D.:** Ross University, Dominica, West Indies, 2003**Richard B. Fries, M.D.**

PGY-7

B.S.: University of Cincinnati, Cincinnati, Ohio, 1997**M.D.:** University of Cincinnati, Cincinnati, Ohio, 2001

Mission

The mission of the Division of Vascular Diseases and Surgery is consistent with that of The Ohio State University Medical Center. Our mission includes the delivery of the highest quality of care to patients throughout Central Ohio suffering from peripheral vascular disease, the contribution to innovations in medicine through research and clinical outcomes studies, and the education of medical students and postgraduate trainees. Strategic planning has been a priority for us as we have focused on identifying how we can best fulfill our mission and truly create the future of medicine to improve people's lives. A key element of our focus is a commitment to leadership in personalized health-care and becoming a high-performance organization and workplace of choice.

Active Research Grants

Starr JE, Das BM, Vaccaro PS, Vermilion BD. The PIVOTAL study: positive impact of endovascular options for treating aneurysms early. Cleveland Clinic Foundation, June 1, 2005 – May 31, 2010, \$3,300.

Starr JE, Farhan NJ, Wexler R. CVRx Rheos pivotal trial. CVRx, Inc., November 12, 2007 – September 1, 2010, \$81,787.

Starr JE, Vaccaro PS. Carotid stenting for high surgical-risk patients: evaluating outcomes through the collection of clinical evidence (CHOICE). Abbott Laboratories, April 26, 2007 – February 27, 2010, \$500.

Starr JE, Vaccaro PS. SONOMA: The NexStent Carotid Stent System: a post-market approval evaluation study in conjunction with the FilterWire EZ Embolic Protection System. Boston Scientific Corp., August 17, 2007 – August 16, 2011, \$75.

Starr JE, Vaccaro PS. Stenting and angioplasty with protection in patients at high risk for endarterectomy (SAPPHIRE WW). Cordis Corp., May 2, 2007 – December 31, 2014, \$5,400.

Starr J, Wexler R. CVRx Rheos pivotal trial. CVRx, Inc., November 12, 2007 – September 1, 2010, \$70,008.

Vaccaro PS, Smead WL, Starr JE. A phase 2 clinical study of the safety and efficacy of the relay thoracic stent graft in patients with thoracic aortic pathologies. Bolton Medical, Inc., August 15, 2007 – August 31, 2012, \$2,000.

Vaccaro P, Smead WL, Starr J. Zenith TX2 thoracic TAA endovascular graft clinical study. Cook, Inc., February 18, 2005 – February 17, 2010, \$2,700.

Vaccaro PS, Starr JE. RNA expression profiling of lesions for in vivo carotid atherectomies (REPLICA): a carotid plaque observational study. FoxHollow Technologies, June 17, 2008 – November 30, 2009, \$1,040.

Accomplishments in Research

- Recruitment of Cameron Rink, Ph.D.
- Approval by the Institutional Review Board of the Abbott Vascular HERCULES (Herculink Elite Cobalt Chromium Renal Stent Trial to Demonstrate Efficacy and Safety), a trial of the RX Herculink Renal Stent System.

- Approval by the Institutional Review Board of the Boston Scientific ORION, a trial of the EPIC Nitinol Stent System in the treatment of atherosclerotic lesions in iliac arteries.
- Continuation of required follow-up for patients enrolled in the Cleveland Clinic Foundation/Medtronic PIVOTAL Study, the Cook Zenith Study, and the Boston Scientific SONOMA Study. These studies are closed to new enrollment but are active in the follow-up phase.
- Publication of 10 scholarly articles by faculty in the division.

Clinical Programs

- Comprehensive general vascular diseases and surgery service.
- Endovascular surgery.
- Laser surgery for varicose veins.
- Arterial surgery clinic.
- Venous surgery clinic.
- Varicose vein clinic.
- Dialysis clinic.
- Outlying vascular clinics in Ashland, Bellefontaine, Fayette, London, Marysville, and Upper Sandusky.

Accomplishments in Clinical Care

- Offering of outpatient clinic varicose vein treatment instead of hospital-based treatment.
- Listing of Dr. William L. Smead by Best Doctors, Inc.
- Receipt by Dr. Blair Vermilion of the Richard M. Ross Heart Hospital Surgeon of the Month Award, in August 2008, for citizenship, punctuality, exemplary professionalism, staff teaching, and dedication to providing excellent, personalized patient care.
- Receipt of Boston Scientific simulation training by residents, fellows, and attending physicians, who received a day of hands-on training in endovascular care on August 7, 2008.

- Continuation of a high patient satisfaction score. As of April 2009, the overall assessment total was 91.2 percent.
- Use of the Guidant stent system in the treatment of blockages in the carotid artery.
- Use of the Rheos Baroreflex Hypertension Therapy System for treatment to control hypertension, or high blood pressure.
- Use of the Hercules Elite Stent System in the treatment of blockages in the renal artery.

Clinical Statistics

OR Procedures	1,895
Outpatient Visits	5,904
Admissions	901
Patient Days	3,747
Average Length of Stay (Days)	4.19

Educational Programs

- Two-year fellowship in vascular diseases and surgery, accredited in 2006 by the Accreditation Council for Graduate Medical Education.
- Seminar in Practice Management. Dr. Bhagwan Satiani presents this monthly seminar to the students and residents in the Department of Surgery.
- Comprehensive rotation in vascular diseases and surgery for junior and senior general surgery residents.
- Subinternship in vascular diseases and surgery.

Accomplishments in Education

- The division's Grand Rounds was approved for Category 1 continuing medical education credit toward the American Medical Association Physicians Recognition Award.

- Dr. Siddharth Bhende attended the Hemoshield Vein Harvest Training, in Cleveland, Ohio, September 10–12, 2008; the Gore Vascular Surgery Fellows Symposium, in Fort Lauderdale, Fla., March 16–18, 2009; the Medtronic Fellows Technology Exchange, in Minneapolis, Minn., April 3–5, 2009; and the Annual Meeting of the Society for Vascular Surgery, in Denver, Colo., June 11–14, 2009.
- Dr. Mohan Das attended the Gore Endovascular and Surgical Technology Showcase, in Flagstaff, Ariz., October 8–12, 2008; and the Annual Meeting of the Society for Vascular Surgery, in Denver, Colo., June 11–14, 2009.
- Dr. Richard Fries attended the 26th Annual UCLA Symposium: A Comprehensive Review and Update on What's New in Vascular and Endovascular Surgery, in Beverly Hills, Calif., September 2–6, 2008; the Gore VIP Product Showcase, in Flagstaff, Ariz., October 8–12, 2008; and the Annual Meeting of the Society for Vascular Surgery, in Denver, Colo., June 11–14, 2009.
- Dr. Michael Go attended the Seventh Annual Pittsburgh Vascular Symposium, in Pittsburgh, Pa., October 3, 2008; the Gore Endovascular and Surgical Technology Showcase, in Flagstaff, Ariz., October 8–12, 2008; the Osler Institute Vascular Surgery Mock Oral Course, in Dallas, Texas, May 16–17, 2009; and the Annual Meeting of the Society for Vascular Surgery, in Denver, Colo., June 11–14, 2009. Dr. Go took his Vascular Surgery Certifying Examination, in Dallas, Texas, May 18–19, 2009.
- Dr. Bhagwan Satiani attended the 129th Annual Meeting of the American Surgical Association, in Indian Wells, Calif., April 22–26, 2009; the Annual Meeting of the Society for Vascular Surgery, in Denver, Colo., June 11–14, 2009; and the Columbus Medical Association's meeting "Physician Contracts: with Hospitals and Others," in Columbus, Ohio, June 16, 2009.
- Dr. William Smead attended the 32nd Annual Meeting of the Midwestern Vascular Surgical Society, in Madison, Wis., September 11–13, 2008; the 94th Annual Clinical Congress of the American College of Surgeons, in San Francisco, Calif., October 12–16, 2008; the 66th Annual Meeting of the Central Surgical Association, in Sarasota, Fla., March 5–7, 2009; and the Eastern Surgical Society Meeting, in New York, N.Y., May 7–10, 2009.
- Dr. Jean Starr attended the Grant Medical Center Vascular Symposium, in Columbus, Ohio, May 8, 2009; and Mentice VIST Training, in Chicago, Ill., May 15, 2009.
- Dr. Patrick Vaccaro attended the fall meeting of the Association of Program Directors in Vascular Surgery, in Beverly Hills, Calif., September 4–5, 2008; the International Symposium on Endovascular Therapy, in Hollywood, Fla., January 17–21, 2009; and the Central Surgical Association Meeting, in Sarasota, Fla., March 5–7, 2009.

- Dr. Blair Vermilion attended the 32nd Annual Meeting of the Midwestern Vascular Surgical Society, in Madison, Wis., September 11–13, 2008; the Gore Endovascular and Surgical Technology Showcase, in Flagstaff, Ariz., October 8–12, 2008; a Credential Clinic Conference, in Orlando, Fla., February 4–6, 2009; the 21st Annual Meeting of the American Venous Forum, in Phoenix, Ariz., February 10–14, 2009; and a Physician Advisory Conference, in Phoenix, Ariz., March 29 – April 1, 2009.

Community Outreach Programs

- Presentation of regular lectures on vascular disease at Central Ohio hospitals, the College of Medicine, departments of surgery, hospital board meetings, medical staff meetings, surgery grand rounds, medical society meetings, and the division's vascular symposium.

Accomplishments in Community Outreach

- Dr. Bhagwan Satiani was co-director and planner of the Noninvasive Testing Symposium, at The Ohio State University Medical Center, Columbus, Ohio, November 1, 2008; was elected to the board of Asha Ray of Hope, a not-for-profit organization that assists victims of domestic violence in the South Asian community in Columbus; and served as reviewer for the Journal of Vascular Surgery, February 2009 – February 2010.
- Dr. Jean Starr volunteered to be shadowed in the clinic and operating room by Med I–II students in the Department of Surgery's Surgery Interest Group; and served as a reviewer for the Cardiovascular Mortality Reduction Committee for 2009–2010.
- Dr. Patrick Vaccaro was appointed chair of the American College of Surgeons Ohio District #3 Committee on Applicants; conducted fellowship interviews for the American College of Surgeons Ohio District #3 Committee on Applicants, April 25, 2009; was voted chief of staff-elect at The Ohio State University Medical Center, effective July 1, 2009; and was named a trustee of the Columbus Medical Association.

Publications

Augustin T, Bhende S, Chavda K, VanderMeer T, Cagir B. CT scans and acute appendicitis: a five-year analysis from a rural teaching hospital. *J Gastrointest Surg* 2009; 13(7):1306–1312.

Baril DT, Marone LK, Kim J, Go MR, Chaer RA, Rhee RY. Outcomes of endovascular interventions for TASC II B and C femoropopliteal lesions. *J Vasc Surg* 2008; 48(3):627–633.

Go MR, Baril DT, Leers SA, Chaer RA. Acute cauda equina syndrome secondary to ilio caval thrombosis successfully treated with thrombolysis and pharmacomechanical thrombectomy. *J Endovasc Therapy* 2008; 16(2):233–237.

Go MR, Siegenthaler MP, Rhee RY, Gupta N, Makaroun MS, Cho JS. Physiologic coarctation of the aorta resulting from proximal protrusion of thoracic aortic stent grafts into the arch. *J Vasc Surg* 2008; 48(4):1007–1011.

Lesinski GB, Raig ET, Guenterberg K, Brown L, Go MR, Shah NN, Lewis A, Quimper M, Hade E, Young G, Chaudhury AR, Ladner KJ, Guttridge DC, Bouchard P, Carson WE. IFN- α and bortezomib overcome Bcl-2 and Mcl-1 overexpression in melanoma cells by stimulating the extrinsic pathway of apoptosis. *Cancer Research* 2008; 68(20):8351–8360.

Pleister I, Evans J, Vaccaro PS, Satiani B. Natural history of the great saphenous vein stump following endovenous laser therapy. *Vasc Endovasc Surg* 2008; 42(4):348–351.

Raig ET, Jones NB, Varker KA, Benniger K, Go MR, Biber JL, Lesinski GB, Carson WE. VEGF secretion is inhibited by interferon- α in several melanoma cell lines. *J Interferon Cytokine Res* 2008; 28(9):553–561.

Satiani B. Physicians' motives in imaging. *Health Affairs* 2009; 28(2):602–603.

Satiani B, Miller S, Patel D. No-show rates in the vascular laboratory: analysis and possible solutions. *J Vasc Interv Radiol* 2009;20(1):87–91.

Vaccaro PS, Vermilion BD. Venous insufficiency. *Updates Cardiovasc Med Surg* 2009; 6(1):6.

National Presentations

Bhende S. Delays in diagnosis and treatment of acute appendicitis: a five-year analysis from a rural teaching hospital (poster presentation). American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 13, 2008.

Bhende S. True extracranial internal carotid artery aneurysm repair with transposition of hypoglossal nerve (poster presentation). American College of Surgeons, 94th Annual Clinical Congress, San Francisco, Calif., October 13, 2008.

Satiani BS. Vascular hospital privileges: who, what, and where? Society for Vascular Surgery, Annual Meeting, Denver, Colo., June 12, 2009.

Satiani BS, Williams TE, Go MR. Predicted shortage of vascular surgeons in the United States: population and work-load analysis. Society for Vascular Surgery, Annual Meeting, Denver, Colo., June 12, 2009.

Satiani BS, Williams TE, Thomas A, Ellison EC. The estimated cost of training the future surgical work force. American Surgical Association, 129th Annual Meeting, Indian Wells, Calif., April 24, 2009.

Miscellaneous Presentations

Das BM. Carotid artery diseases. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, January 16, 2009.

Das BM. Carotid endarterectomy. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth-Floor Nurse In-service, Columbus, Ohio, December 10, 2008.

Das BM. Correct instruments. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Central Supply Department, Columbus, Ohio, June 18, 2009.

Das BM. Diabetic foot problems. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, May 15, 2009.

Das BM. Lower extremity diseases. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth-Floor Nurse In-service, Columbus, Ohio, May 13, 2009.

Das BM. Medical therapeutics invitation. The Ohio State University Medical Center, Senior Course in Therapeutics, Columbus, Ohio, March 11, 2009.

Das BM. Principles of amputation surgery. The Ohio State University Medical Center, Department of Physical Medicine and Rehabilitation, Resident Seminar, Columbus, Ohio, April 29, 2009.

Das BM. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, August 4, 2008.

Das BM. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, August 6, 2008.

Das BM. Vascular and thoracic surgery animal lab. The Ohio State University Medical Center, Columbus, Ohio, March 5, 2009.

Fries RB. Calf vein thrombosis: natural history and role of ultrasound. The Ohio State University Medical Center, Noninvasive Testing Symposium, Columbus, Ohio, November 1, 2008.

Go MR. Current management of DVT. The Ohio State University Medical Center, Surgery Grand Rounds, Columbus, Ohio, November 6, 2008.

Go MR. Hemostasis, surgical bleeding, and transfusion. The Ohio State University Medical Center, Basic Sciences Lecture, Columbus, Ohio, September 18, 2008.

Go MR. Lower extremity ischemia. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth-Floor Nurse In-service, Columbus, Ohio, November 19, 2008.

Go MR (Preceptor). Med III introduction to clinical medicine. The Ohio State University Medical Center, Columbus, Ohio, June 9, 2009.

Go MR. Paracentesis. The Ohio State University Medical Center, Clinical Skills Education and Assessment Center, Clinical Skills Immersion Experience Lecture, Columbus, Ohio, December 23, 2008.

Go MR. Paracentesis. The Ohio State University Medical Center, Clinical Skills Education and Assessment Center, Clinical Skills Immersion Experience Lecture, Columbus, Ohio, February 24, 2009.

Go MR. Physiology and pathophysiology of blood vessels. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, January 2, 2009.

Go MR. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, September 29, 2008.

Go MR. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, October 1, 2008.

Go MR. Vascular system. The Ohio State University Medical Center, Professor Conference, Columbus, Ohio, February 26, 2009.

Satiani BS. The estimated cost of training the future surgical work force. The Ohio State University Medical Center, Department of Surgery Faculty, Columbus, Ohio, April 17, 2009.

Satiani BS. The impending shortage and estimated cost of training the future neurosurgical work force. The Ohio State University Medical Center, Department of Neurosurgery, Grand Rounds, Columbus, Ohio, May 21, 2009.

Satiani BS. Personal savings/investing and the importance of creating a financial plan. The Ohio State University Medical Center, Student Financial Services, Columbus, Ohio, February 16, 2009.

Satiani BS. Portable ultrasound: indications, appropriateness, and economic implications. The Ohio State University Medical Center, Noninvasive Testing Symposium, Columbus, Ohio, November 1, 2008.

Satiani BS. Venous disease (PVD). The Ohio State University Medical Center, Professor Conference, Columbus, Ohio, February 12, 2009.

Satiani BS. What is the most important financial advice that you would offer to students? The Ohio State University Medical Center, Student Financial Services, Columbus, Ohio, October 30, 2008.

Satiani BS, Shobo A. Vascular ultrasound. The Ohio State University Medical Center, Clinical Skills Educational and Assessment Center, Ultrasound Honors Course for Fourth-year Honors Medical Students, Columbus, Ohio, September 3, 2008.

Smead WL. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, June 1, 2009.

Smead WL. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, June 3, 2009.

Smead WL. Thoracic outlet syndrome. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, March 20, 2009.

Smead WL. Thoracic outlet syndrome. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth Floor Nurse In-service, Columbus, Ohio, June 10, 2009.

Smead WL. Visceral ischemia. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, December 19, 2008.

Starr JE. Acute arterial occlusion. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, April 17, 2009.

Starr JE. Angiogram. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth-Floor Nurse In-service, Columbus, Ohio, October 15, 2008.

Starr JE. Carotid stents: update on results and ultrasound criteria. The Ohio State University Medical Center, Noninvasive Testing Symposium, Columbus, Ohio, November 1, 2008.

Starr JE. Clinical update on vascular interventions and Rheos. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Board Meeting, Columbus, Ohio, August 18, 2008.

Starr JE. Commercial for the Richard M. Ross Heart Hospital. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Columbus, Ohio, July 20, 2008.

Starr JE. Finding work-life balance in surgery. American College of Surgeons, Ohio Chapter, Cleveland, Ohio, May 9, 2009.

Starr JE. Hemostasis, surgical bleeding, and transfusion. The Ohio State University Medical Center, Basic Sciences Lecture, Columbus, Ohio, September 4, 2008.

Starr JE. New modalities for thoracic aortic aneurysm repair. Barberton Hospital, Surgery Staff Meeting, Barberton, Ohio, May 20, 2009.

Starr JE. New modalities for thoracic aortic aneurysm repair. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth-Floor Nurse In-service, Columbus, Ohio, April 15, 2009.

Starr JE. Renal artery disease. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, November 21, 2008.

Starr JE. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, February 2, 2009.

Starr JE. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, February 4, 2009.

Starr JE. Update on closure devices. Abbott Vascular Program, Columbus, Ohio, April 16, 2009.

Vaccaro PS. Claudication. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, October, 3, 2008.

Vaccaro PS. Innominate, subclavian, and vertebral diseases. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, February 6, 2009.

Vaccaro PS. Management of vascular trauma. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, June 19, 2009.

Vaccaro PS. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, March 30, 2009.

Vaccaro PS. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, April 1, 2009.

Vermilion BD. Abdominal aortic aneurysm. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth-Floor Nurse In-service, Columbus, Ohio, February 18, 2009.

Vermilion BD. Atherosclerosis: etiology and pathogenesis. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, June 5, 2009.

Vermilion BD. Hemodynamics. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Ohio, February 20, 2009.

Vermilion BD. Postoperative vascular patients. The Ohio State University Medical Center, the Richard M. Ross Heart Hospital, Fifth-Floor Nurse In-service, Columbus, Ohio, September 17, 2008.

Vermilion BD. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, December 1, 2008.

Vermilion BD. Stroke, vascular surgery, and the ischemic and swollen leg. The Ohio State University Medical Center, Student Group Session, Columbus, Ohio, December 3, 2008.

Vermilion BD. Vascular system: venous diseases. The Ohio State University Medical Center, Professor Conference, Columbus, Ohio, March 12, 2009.

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